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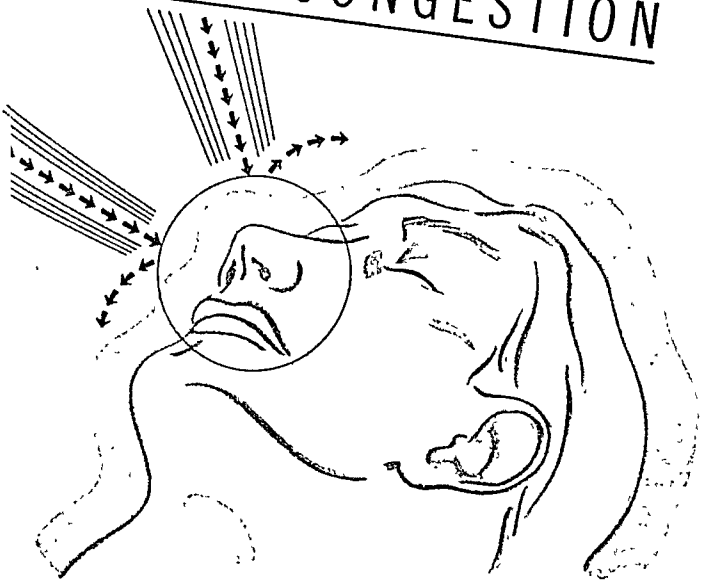
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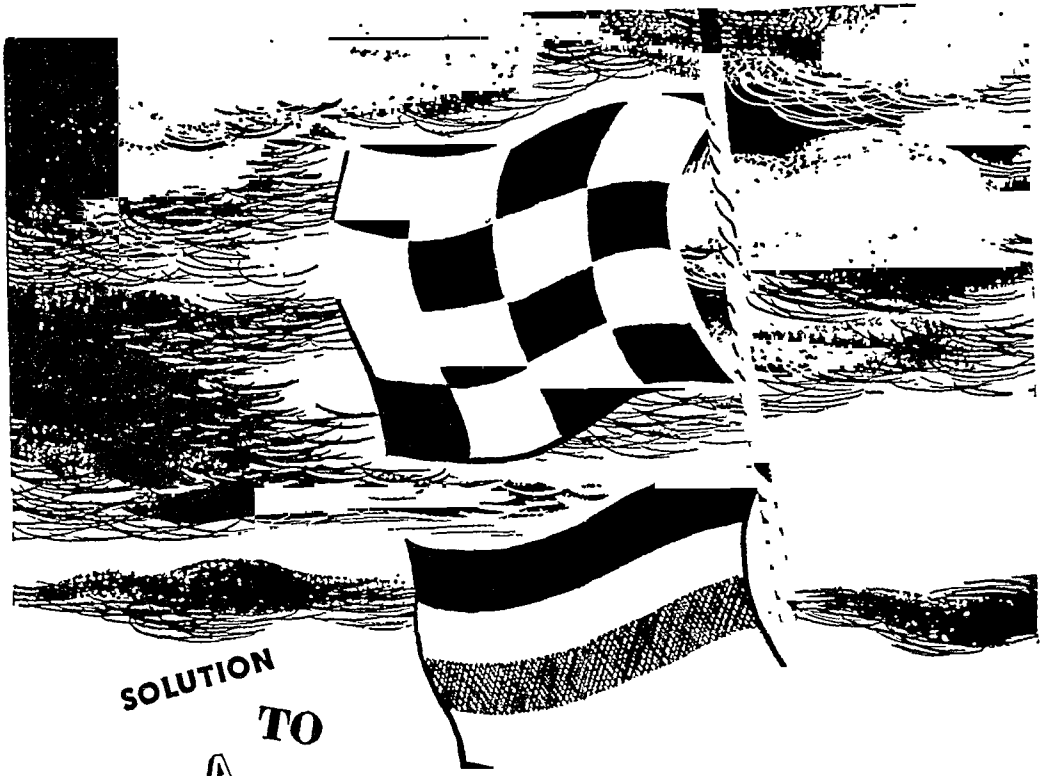
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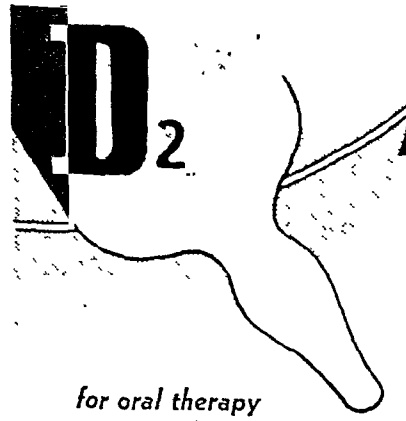
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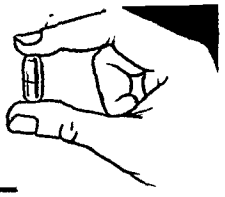
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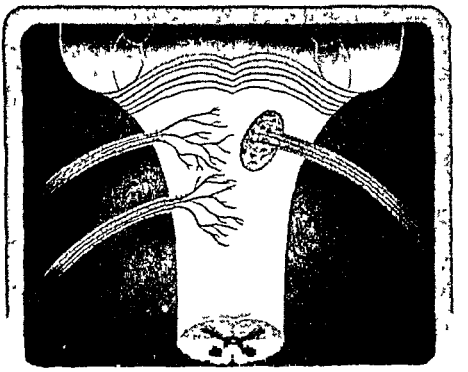
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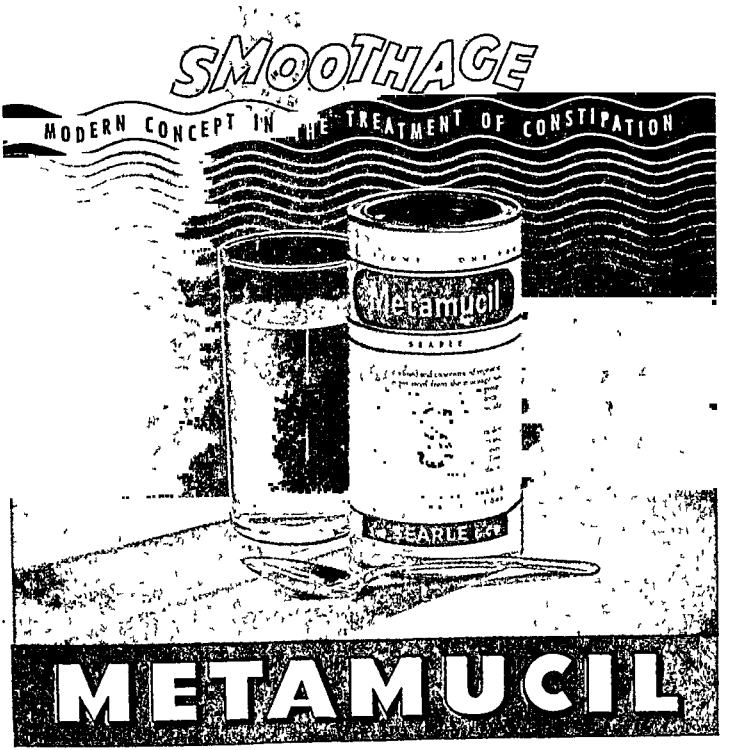
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21 Sn[illegible] Rudd, ated I Activ nary J

White's

Sulfathiazole

Gum



THE rationale of this most effective new local sulfonamide treatment lies in this:

Even a single tablet produces, throughout the entire oropharyngeal area—for as long as one hour's chewing—a con-

FOR THE MORE EFFECTIVE)CAL SULFONAMIDE TREATMENT OROPHARYNGEAL INFECTIONS

centration of *locally active* sulfathiazole, dissolved in saliva, averaging 70 mg. per cent. Yet even with *maximal* dosage over a prolonged time-period—and even in children—blood levels produced are so low as to be immeasurable for the most part, and only rarely even approach 1 mg. per cent.

Local efficacy, and freedom from systemic toxicity, have been proved in wide clinical experience to be as impressive as the striking figures cited above would suggest.

White's Sulfathiazole Gum is supplied in packages of 24 sanitaped tablets in slip-sleeve prescription boxes—*on prescription only.*

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Paredrine-Sulfathiazole

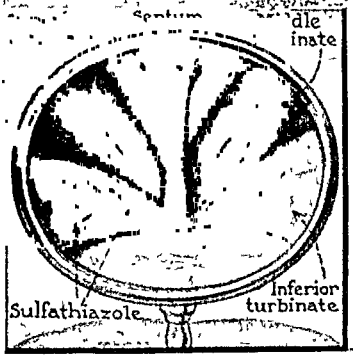
How It Shortens the Course of Infection and Helps Avert Sequelae to Colds

THESE drawings—from photographs presented as a scientific exhibit at the 1944 Meeting of the American Academy of Ophthalmology and Otolaryngology—demonstrate why Paredrine-Sulfathiazole Suspension is so strikingly effective in nasal and sinus infections. The choanae of patient T. D.—with subacute pansinusitis—are illustrated.

The dramatic success of Paredrine-Sulfathiazole Suspension in aborting colds and averting complications is largely due to its prolonged bacteriostatic action. When the Suspension is administered on retiring, for example, sulfathiazole can often be observed on infected mucosa the next morning—conclusive evidence that bacteriostasis has persisted all night long.

The fundamental reason for this prolonged bacteriostatic action is the fact that Paredrine-Sulfathiazole Suspension—not a solution, but *a suspension* of free sulfathiazole—covers the nasal mucosa with a fine, even frosting of sulfathiazole, which does not quickly wash away. Yet the Suspension does not cake or clump, and does not interfere with normal ciliary action.

Suspension—

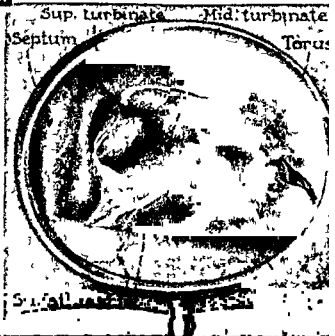


30 MINUTES AFTER INSTILLATIO

The Suspension has been swept onto infected areas, where ciliary action is impaired. The sulfathiazole remain on infected areas and keeps producing a bacteriostatic solution.

45 MINUTES AFTER INSTILLATION

Sulfathiazole mixed with pus is passing over the orifice of the Eustachian tube. Should pus enter the middle ear, the sulfathiazole will minimize the likelihood of otitis media





50 MINUTES AFTER INSTILLATION

A NEW, DIFFERENT AND BETTER FORM OF SULPHUR FOR

ACNE VULGARIS



COLLO-SUL CREAM contains active, stable colloidal sulphur in a water-miscible, emulsion-base cream. It gives excellent sulphur action without irritation—is free from any objectionable "sulphur" odor and annoying greasiness.

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IODINE...

Its Action in Antisepsis

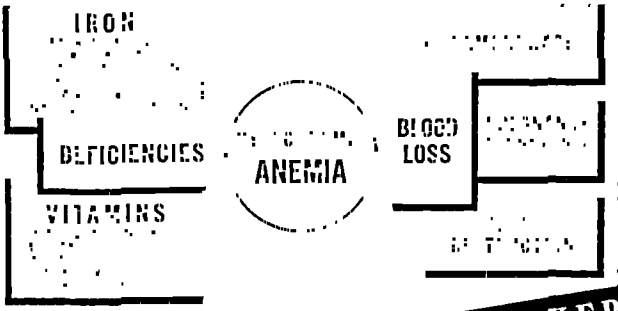
The germicidal action of Iodine is not limited to the vegetative bacilli. It destroys certain spore-bearing organisms as well. In numerous tests comparing Iodine with other antiseptics, the toxicity index of Iodine has been found to be low.

The germicidal value of Iodine has been so effectively demonstrated, both clinically and in laboratory tests, that Iodine is usually a standard against which other antiseptics—old or new—are compared.

The physician may rely upon Iodine in pre-operative skin disinfection and in the treatment of wounds.

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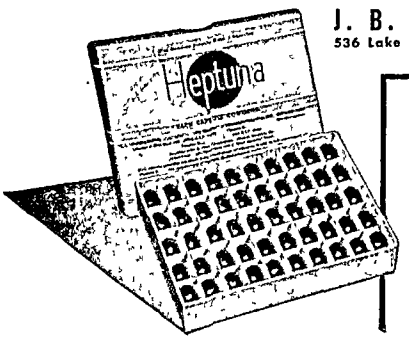
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Secondary anemia, encountered with increasing frequency among industrial workers, makes for easy fatigability, reduces efficiency, and—by lessening acuity—*contributes to accidents. Correction of anemia thus is a major concern in industrial practice.*

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EACH CAPSULE CONTAINS
Ferrous Sulfate..... 4.5 gr.



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stipation • Colitis
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Zymenol makes the bowel duty conscious by maintaining normal intestinal content through Brewers Yeast Enzymatic Action* and aiding restoration of normal intestinal motility with Complete Natural Vitamin B Complex.*

Natural urge to defecate is re-established without carthar-sis, artificial bulkage or large doses of mineral oil.

Economical teaspoon dosage avoids oil leakage and does not affect vitamin absorption.



NO ONE CAN FORECAST the time when a volcano will become dangerously active...nor the hour of a peptic ulcer attack.

However, when peptic or duodenal ulcers do act up, medical consensus favors conservative measures...including strict dietary regimen and the administration of adsorbents, demulcents and protectives.

BISMAKAOLIN, exhibiting the known therapeutic efficacy of bismuth and kaolin, protects eroded surfaces ...provides adsorbent and detoxicant action in the treatment of chronic ulcerative colitis.

For dependable and efficient medication in certain stomach and bowel conditions where surgical intervention is contraindicated, specify

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Available in bottles containing one pint

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No doctor can ignore that shoe therapy is a major factor in the treatment of many foot disorders. In some cases, however, when further medical or surgical treatment is required, the shoes must be adjusted to conform to any changes such treatments make in the shape or size of the feet.

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With purchases restricted it is readily apparent that substantial shoes, capable of reconstruction or easy adjustment, should be prescribed. For all practical purposes, Pediforme footwear may well be considered in shoe therapy.

A SHOE FOR EVERY MEMBER OF THE FAMILY . . . A SHOE FOR EVERY INDIVIDUAL REQUIREMENT.

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High-Quality Heinz Strained And Junior Foods Provide Tempting, Well-Balanced Meals For The Babies And Toddlers In Your Care

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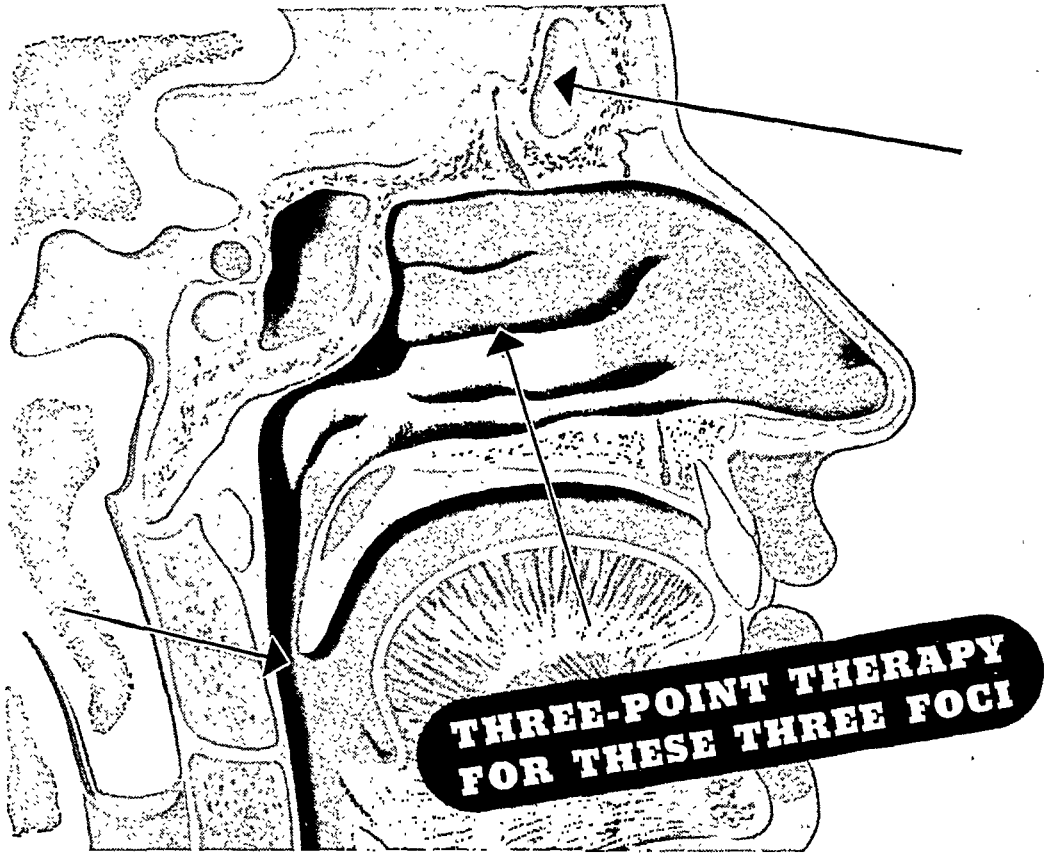
Fruits—A well-balanced fruit-and-cereal combination, Heinz Strained Apricots and Oatmeal is a dish small babies enjoy. Heinz Strained Prunes, Peaches, savory Pears and Pineapple, and Applesauce, are bland, enticing fruits—not too sweet, not too tart.

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HEINZ *Baby Foods*

57



IN the treatment of paranasal infection, ARGYROL offers more than effective antisepsis, decongestion without vasoconstriction, and cleansing effect. It also provides for stimulation, *synergetically*, of the membrane's inherent, natural defense mechanism.

Treatment with ARGYROL is wisely directed to these three foci of paranasal infection:

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2. the nasal cavities...with 10 per cent ARGYROL solution in drops or by nasal tamponage.
3. the fauces and pharynx . . . by swabbing with 20 per cent ARGYROL solution.

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ARGYROL *THE PHYSIOLOGIC ANTISEPTIC WITH SYNERGETIC ACTION . . .*

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THE FETUS, THE MOTHER and PROTEIN—



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To encourage the necessary increased intake of easily assimilable protein without the burden of excessive solid food, discerning clinicians suggest—

HORLICK'S

Whether prepared with milk or water, Horlick's offers a palatable means of augmenting the supply of protein in the diet.

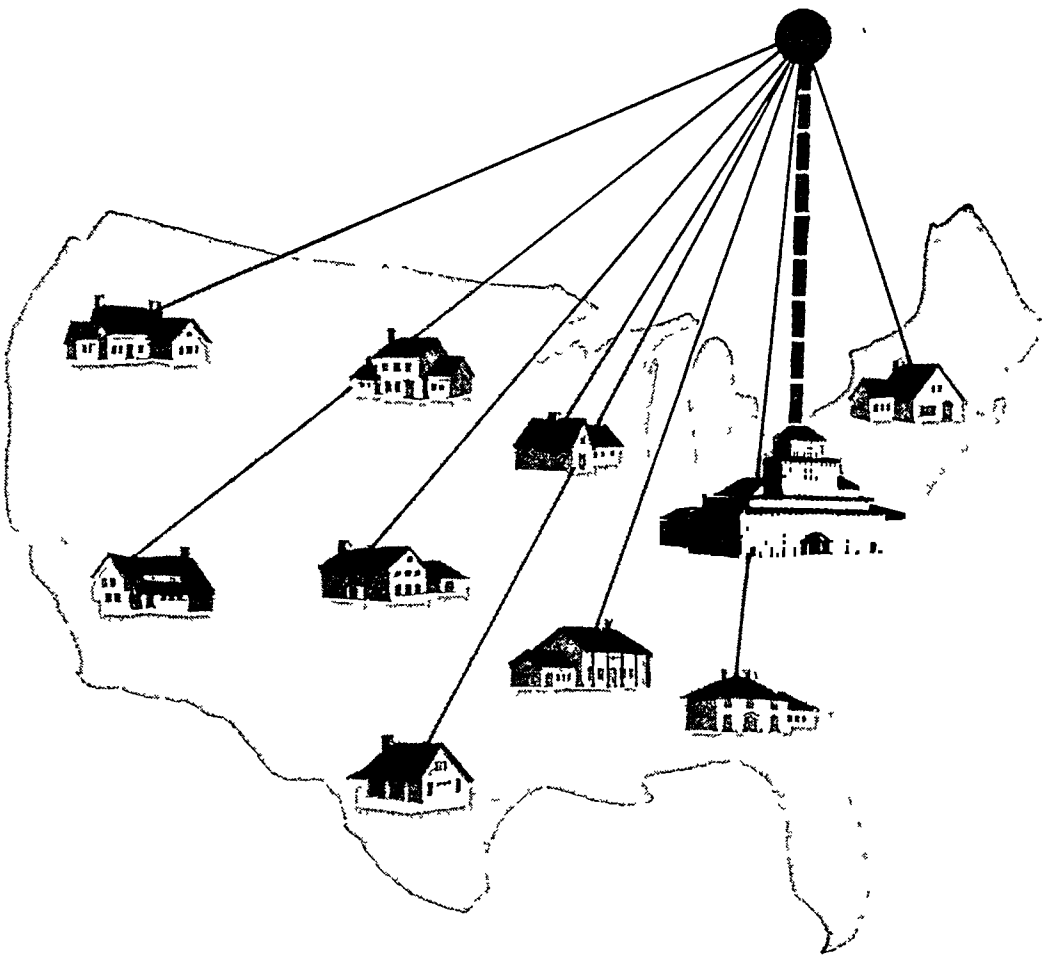
* Burke, B S Harding V V and Stuart, H C Nutrition Studies During Pregnancy JI Ped *23* 506–515 (Nov) 1943

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9 out of 10 cases of EPILEPSY are treated in the home





Of the more than a half-million persons in the United States who suffer from epilepsy, only about 50,000 are in public institutions.[1] Thus, about 90 per cent of the therapy of this disease rests on the shoulders of the physician in private practice.

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Diphenylhydantoin Sodium

Parke, Davis & Company
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1. Tracy Putnam Convulsiv
Seizures, p. 4, J.
Lippincott Co., 194

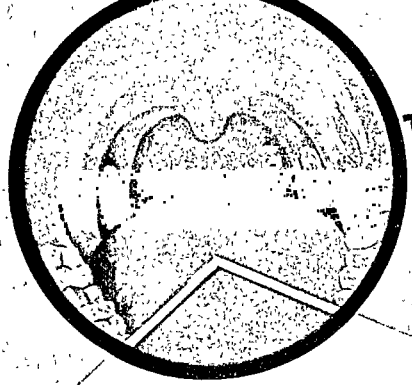


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AIGHT



TO THE OBJECTI

Chewing Aspergum provides the analgesic properties of acetylsalicylic acid at the very site of pharyngeal inflammation. A copious salivary flow, laden with this effective analgesic, is brought into immediate and prolonged contact with painful irritated areas—providing prompt and gratifying relief.

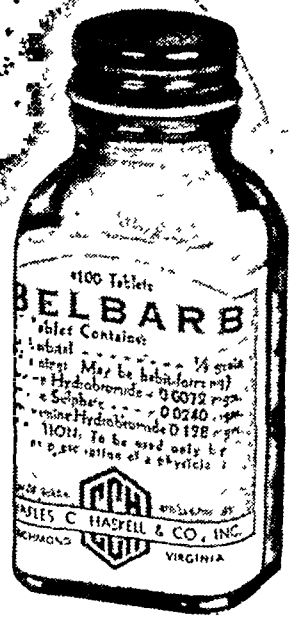
Local spasticity and stiffness are relieved through the gentle muscular stimulation afforded by chewing. The patient is more comfortable, earlier partakes of a suitable diet; convalescence is hastened.

Dillard's **Aspergum**

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AN *Excellent* SEDATIVE *and* HYPNOTIC

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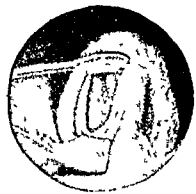
Belbarb No. 2 has the same alkaloidal content but ½ grain phenobarbital per tablet.

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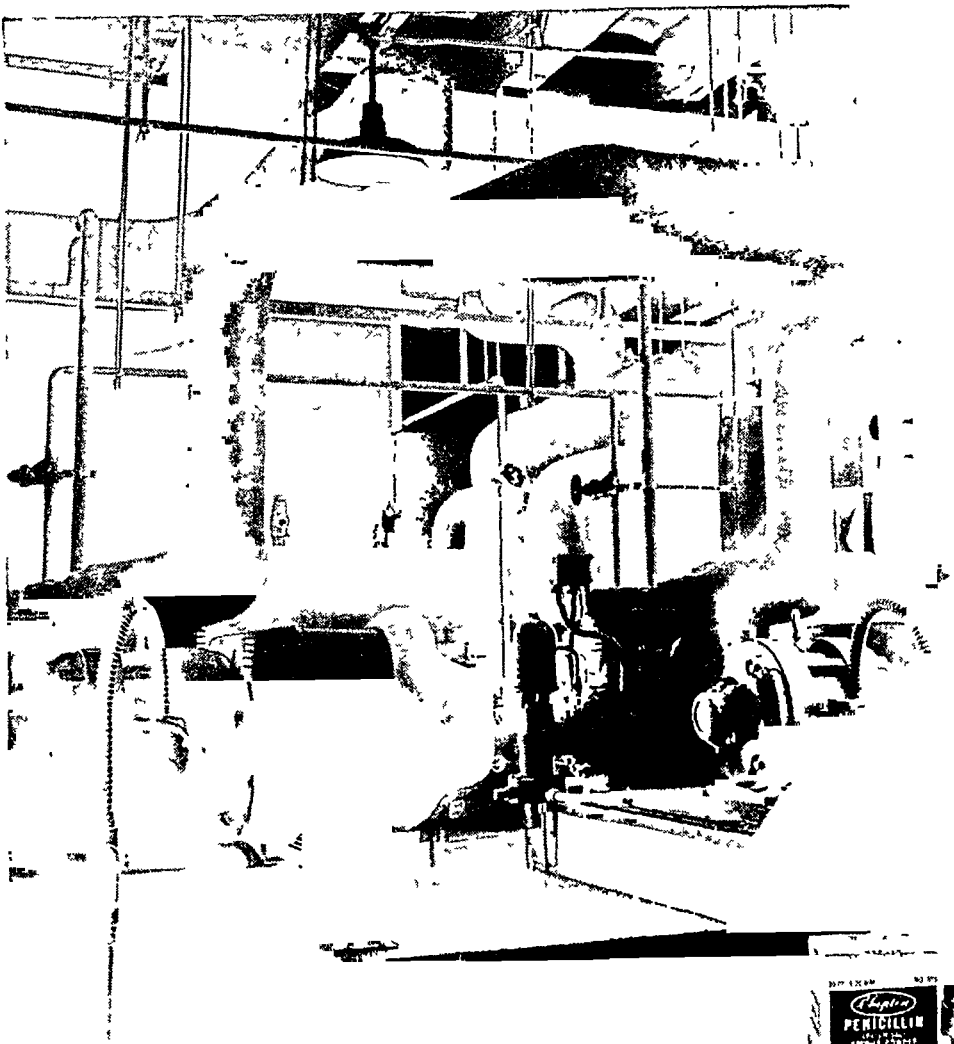
Arch Otolaryng., 39 109 123, 1944.

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Rapid, Complete and Prolonged Shrinkage





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Bring back Paracelsus and his crucibles today...show him the clinical picture of Penicillin...take him on a trip through a great Penicillin plant like that of Cheplin Laboratories. What would he think? Your guess is as good as ours!

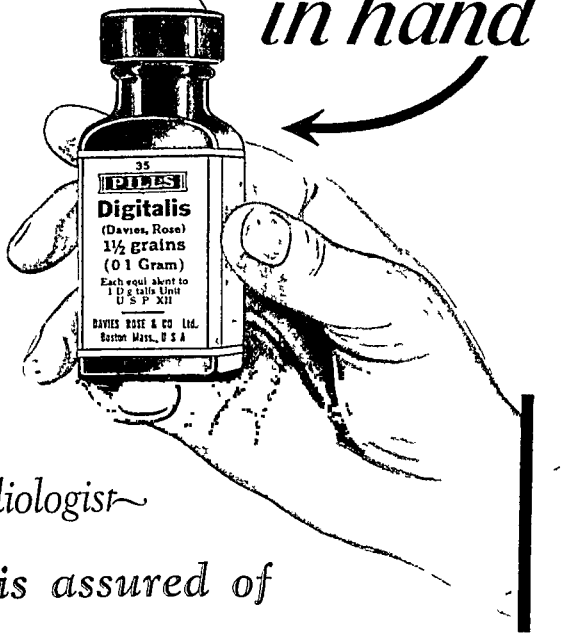
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With this in hand



The Cardiologist~ is assured of

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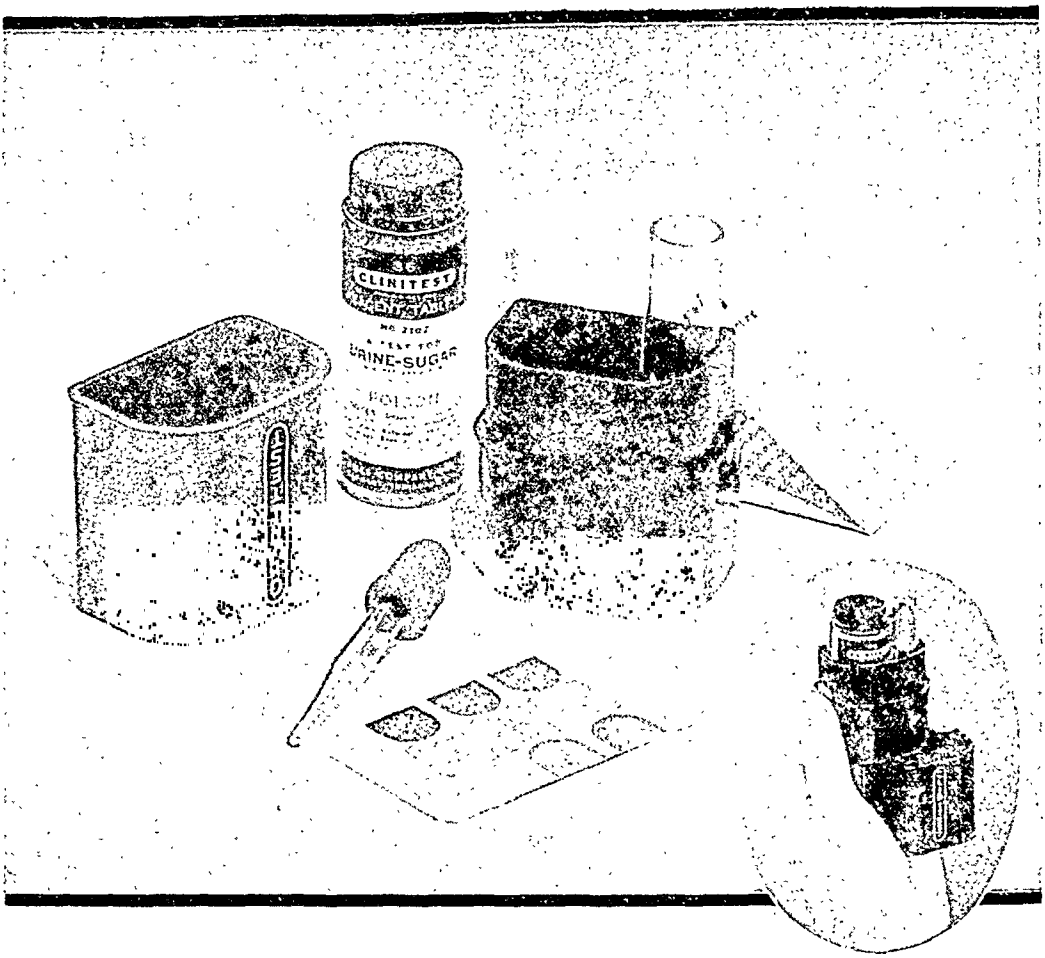
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The Seal of Acceptance denotes that the nutritional statements made in this advertisement are acceptable to the Council on Foods and Nutrition of the American Medical Association.

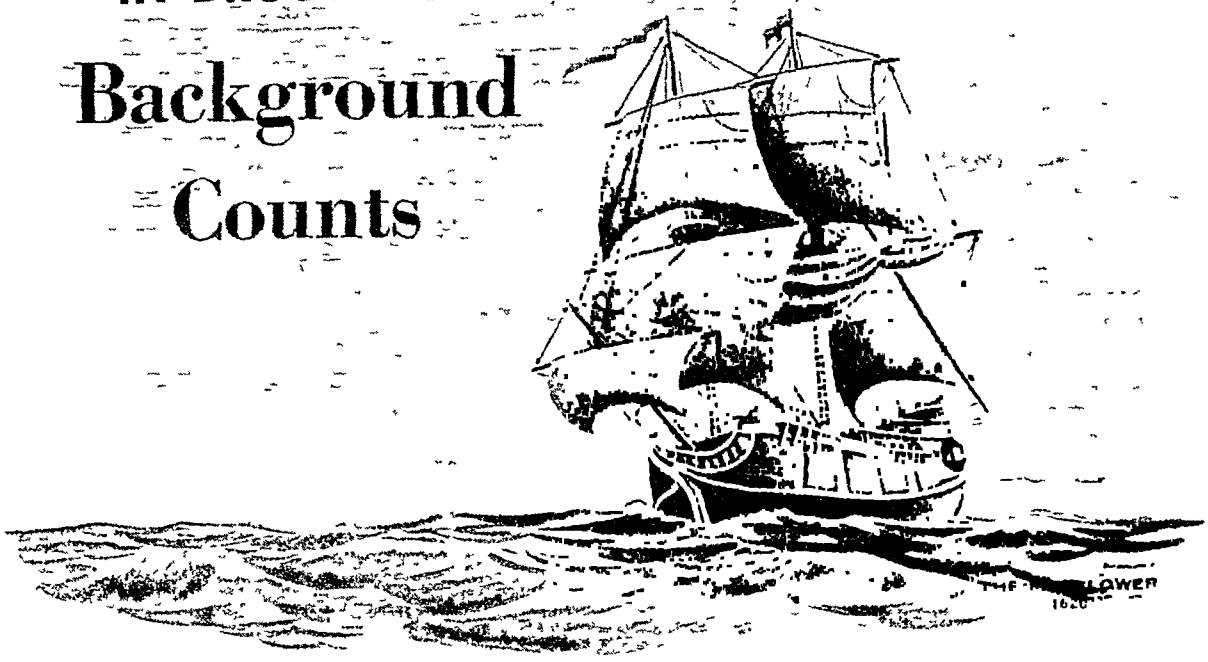
*"Canadian bacon, summer sausage, and sandwich meat contain larger amounts of thiamine than fresh beef, veal or lamb but smaller amounts than fresh pork . . . Of the fresh organ meats studied heart was found to be the richest in thiamine . . . Liver and tongue contained about the same amount of thiamine as muscle meat . . . Liver sausage contains nearly 3 or 4 times as much riboflavin as any of the other prepared meats . . . The other prepared meats fall in the same range as fresh muscle meats . . The nicotinic acid contents of the prepared meats and fresh muscle meat are about the same . . ." (McIntire, J. M.; Schweigert, B. S ; Herbst, E. J., and Elvehjem, C. A.: Vitamin Content of Variety Meats, J. Nutrition 28:35, July 10, 1944)

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For a reliable, potent, economical estrogen, ask your pharmacist for

Amniotin

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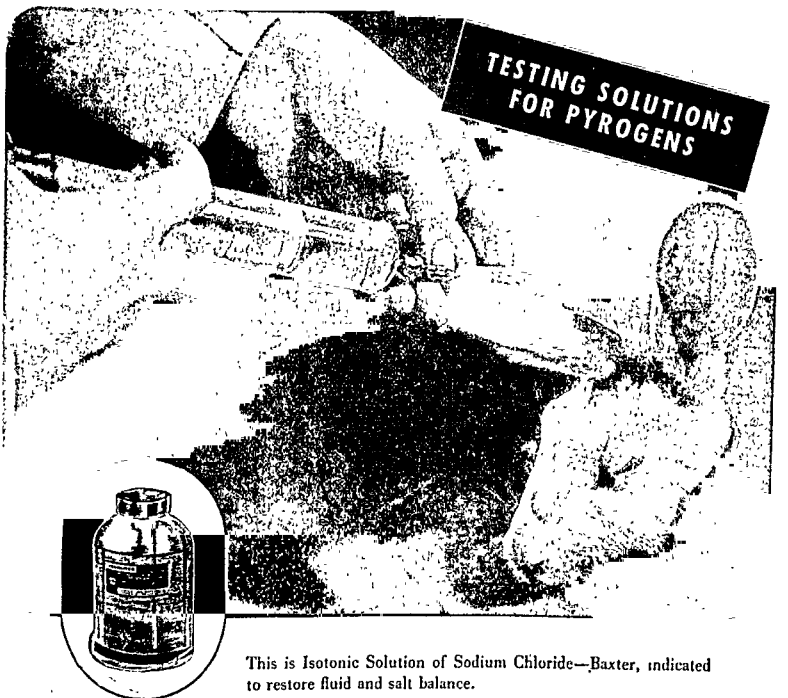
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physiologist in studying body processes and body requirements.

It was originally thought that the nutritious properties of food were due to the presence of a single substance which was referred to under the term "aliment." In 1834 Prout[1] stated that there were three great "staminal or proximate principles"—a saccharine principle, an oily principle, and an albuminous principle, which provided the essential nutritive constituents of all organized bodies. It was considerably later that the need for mineral elements was established, followed in the present century by the discovery of the first vitamin. Now it appears that nearly forty distinct chemical substances are required in the diet.

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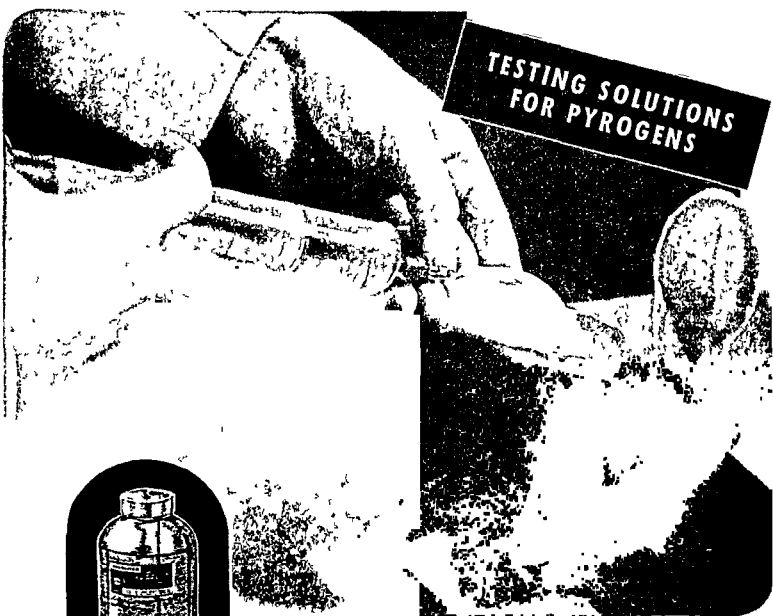
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The development in the field of vitamins is, of course, the most recent. Magendie really made the first observation in 1816 when, in using diets consisting of sugar alone or fat alone, he described an eye trouble which was undoubtedly xerophthalmia. While the occurrence of such diseases as scurvy was recognized centuries earlier and cured by appropriate dietary additions, a large amount of physiologic and nutritional knowledge had to accumulate before these deficiencies could be produced experimentally and their specific nutritional causes be established. Thus, the recognition of the existence of the first vitamin, namely, "fat-soluble A," was not made until 1913[6,7] and its chemical identification did not occur until years later. During the past ten years, particularly, advances in the field have been extremely rapid and there now appear to be more than a dozen compounds, definitely identified chemically, which are entitled to be called "vitamins." The significance of some of them in the case of man, and particularly the question of their quantitative need in the diet, remain unsettled.

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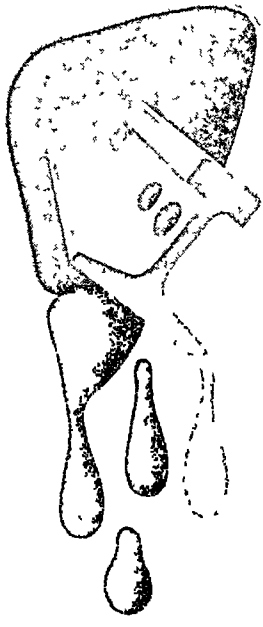
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NEW YORK STATE JOURNAL OF MEDICINE

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Editorial

The Facts About Nutrition

It has been inferred that physicians are somewhat skeptical of nutritional studies.* This cannot be denied. Too many popular reports of this subject contain exaggerated or inaccurate statements. These statements are undoubtedly responsible, at least in part, for the skepticism which marks the clinician's attitude. The war, of necessity, has raised the question of food nutritional values. Many scientists who have labored with the noblest of purpose on serious nutritional problems have gone unheard because of the overwhelming voice of those lamenting deficiencies in our diet and the consequent casualties among the American people. Can there be a physician who has not wondered how the human race survived to 1913, the date when the first vitamin was discovered?

There have been attempts in recent years to appraise the nutritional status of individuals by laboratory and special instrument methods. Physicians followed this program with the highest hopes. Then, one after another, the exalted experiments or easy signs of nutritional deficiencies fell short. At first, the adaptometer, and then the biomicroscope, seemed the answer for the diagnosis of vitamin A deficiency. Hundreds of investigators have argued the plasma ascorbic acid level that is optimum for health. Corneal vascularization, formerly thought to be strictly an indication of riboflavin deficiency, has now been observed in several other conditions. Hence, it cannot by itself be accepted as specific.

In order to clarify the clinician's thinking and free him from skepticism, he must be shown through his own observations on human beings rather than by claims of the experts. To use efficiently [illegible] sician must be far [illegible] is JOURNAL has pre[illegible] sity, several editorials on the background and modern conception of nutrition principles for normal people with which every physician should be familiar.

The first installment appears below.

Milestones in Nutrition

The great French chemist, Lavoisier, is frequently referred to as the founder of the science of nutrition. He established the chemical basis of nutrition in his famous respiratory experiments, carried out before the French Revolution. His studies led him to state, "La vie est une fonction chimique." Thus, chemistry became a tool used by the

* Bessey, O. A.: Proceedings, Research Conference on the Relation of Nutrition to Public Health, Oct. 11, 1943, p. 23.

physiologist in studying body processes and body requirements.

It was originally thought that the nutritious properties of food were due to the presence of a single substance which was referred to under the term "aliment." In 1834 Prout[1] stated that there were three great "staminal or proximate principles"—a saccharine principle, an oily principle, and an albuminous principle, which provided the essential nutritive constituents of all organized bodies. It was considerably later that the need for mineral elements was established, followed in the present century by the discovery of the first vitamin. Now it appears that nearly forty distinct chemical substances are required in the diet.

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Beginning in the middle of the last century, the concept was developed for farm animals that the nutritional needs could be determined with reference to age, size, and activity, and expressed in terms of the nutrients found by conventional food anal-

yses. This idea was carried over to human nutrition in the development of dietary standards. In this development, Atwater[5] was the pioneer in this country (working period 1890–1910). He worked out the calorie needs of man and evaluated foods in terms of the calories useful to the body. But he dealt only with calories and protein. The modern dietary standards take account of minerals and vitamins as well. Here much needs to be learned, particularly as regards vitamin requirements.

[1] Prout, W.: Bridgewater Treatise, London, Wm. Pickering, 1834.
[2] Magendie, F.: Ann. d. Chim. Phys., Ser. I, 3: 66 (1816).
[3] Escher, T.: Vtljsch. d. Naturforsch. Gesellsch. Zurich. 21: 36 (1876).
[4] Osborne, T. B., and Mendel, L. B.: J. Biol. Chem. 17: 325 (1914).
[5] Rose, W. C., *et al.*: J. Biol. Chem. 94: 155, 167, 173 (1931).
[6] McCollum, E. V., and Davis, M.: J. Biol. Chem. 15: 167 (1913).
[7] Osborne, T. B., and Mendel, L. B.: J. Biol. Chem. 16. 423 (1913).
[8] Atwater, W. O., and Benedict, F. G.: Carnegie Inst. Washington, Pub. No. 42 (1905).

Our New Executive Officer

The Medical Society of the State of New York is indeed fortunate in being able to acquire the services of Dr. Robert Roger Hannon, Ph.C., B.S., our distinguished new Executive Officer. He will represent the Society with the old upstate office at 100 State Street, Albany, as his headquarters, the office until recently presided over so constructively, competently, and graciously by Dr. Joseph S. Lawrence, now of Washington, D.C.

Dr. Hannon was born in Amsterdam, New York, but attended grammar school and the University Military School at Mobile, Alabama. He then took his academic work at the University of Washington, in Seattle, where he received the degrees of Pharmaceutical Chemist and Bachelor of Science in 1915.

He graduated in medicine from Johns Hopkins Medical School, Baltimore, in 1919, interned at Ancon Hospital, Ancon, C.Z., 1919–1920, where he studied tropical disease particularly. He then returned as a Fellow in medical research to Johns Hopkins, 1920–1921, and also as instructor in medicine. In the following years he was resident and instructor in medicine at Cornell Medical School, New York City, and assistant adjunct visiting physician at Bellevue Hospital in 1924. In 1927, he went as associate professor of medicine to the University of Rochester and joined the staff of the Strong Memorial Hospital as assistant visiting physician. From there, he went in 1928 to Rockefeller Hospital as associate, proceeding in 1930 as associate professor of medicine to Peking Union Medical College and as associate visiting physician, Peking Union Medical College Hospital, where he remained through 1934.

Returning to the United States, he became medical superintendent, New York Hospital, New York City, in 1936. In 1939 he filled the post of secretary, State Board of Medical Examiners, Department of Education, Albany, New York, during which time and until 1944 he was also assistant professor of medicine, Albany Medical College, Albany. He is a member of the Harvey Society of New York and of the Albany County Medical Society.

Dr. Hannon's medical background is such as to command the respect of all with whom he will come in contact, and he brings to the Executive Office of the Medical Society of the State of New York not only exceptionally varied medical training but also the dignity of a wide experience both in medicine and in the State Department of Education.

It is our considered opinion that American medicine, both to fulfill its wartime functions and to exercise its full scope and power in the postwar world, will need to develop further a quality to which it has not yet sufficiently directed its full attention; namely, the quality of medical statesmanship.

Medicine's relations with local, state, and national government and with the projected super-government of the future world will be vast, complicated, intricate, and can be properly and powerfully influential. It can aid, perhaps as no other agency yet created by mankind, in the cause of maintenance of the peace; it speaks all languages, crosses all borders,

flies to the stratosphere, goes under seas, enters all homes and hearts.

Yet medicine can be no better than the mind of man who has created it; no broader than his outlook on life; no deeper than the foundations he has put under it; no more forceful than the spiritual drive he puts behind it.

Our concept of the teaching of medicine has been somewhat limited by our closeness to it. Our concept of the practice of medicine has been too circumscribed in the past by what we thought were the limitations of the practitioners. Our relations with each other, with the public, with agencies of government have been erratically timid, sometimes querulous, often diffident, frequently formidable. There does not seem to have been developed as there could have been, a quality of leadership, either by our schools, our county societies, or our other representative bodies, which could be thought of and respected as consistent medical statesmanship.

The choice of Dr. Hannon to represent the Society at Albany seems a wise move in the direction of sound medical statesmanship. His personality, his background, his training, his wide and varied experience in many parts of the world, his acquaintance with legislators and legislative procedures should materially raise the already high public relations standards of the Medical Society of the State of New York.

Correspondence

To the Editor:

At a time when the Blue Cross, and many large hospitals, press for the inclusion of medical care with the benefits of group hospitalization contracts, the experience of the doctors of the city of Niagara Falls, New York, should be of interest to the physicians who are tempted to submit to professional exploitation as an inducement to Blue Cross subscribers.

In the October, 1943, issue of *Medical Economics*, Mr. Louis H. Pink stated that "Blue Cross had never attempted to control the relationship between the hospitals and the medical profession."

In the May, 1944, issue of *Medical Economics*, I pointed out that this statement was incorrect and that the Western New York Hospital Service Corporation had interfered vigorously in that relationship—that it had instigated a "putsch" in the Niagara Falls, New York, hospitals.

In the September, 1944, issue of *Medical Economics*, Mr. Carl H. Metzger, executive director of the Buffalo Hospital Service Corporation (Blue Cross), denied that it had instigated a "putsch" against the medical profession of Niagara Falls, New York. He admitted, however, that the Blue Cross Corporation put pressure on Niagara Falls Hospital trustees to achieve what he describes as "normal utilization" of group hospitalization coverage there. He stated further that at no time did the hospital service corporation attempt to influence appointments. When Mr. Metzger stated that the (Blue Cross) Corporation notified the (Niagara Falls) hospital trustees that it could not continue to operate the plan in Niagara Falls unless normal utilization were achieved, he did not state all that he did. He went further! How far he went the reader may now judge for himself. Here are Mr. Metzger's own words on the subject in a signed communication of April 27, 1944, attempting to explain the situation to a dissatisfied subscriber: "Second, we are not, we do not claim to be, and we recognize our inability to be an approval or rating body for member hospitals. It is true that the utilization of hospital service in Niagara Falls was away beyond normal. Investigation indicated that although these hospitals had been approved by the American College of Surgeons, the inspection for approval had evidently overlooked the fact that the requirement regarding medical staff organization was not being complied with. This we called to the attention of the hospitals."

Notice what they called attention to!—the hospitals' medical staff organization. They were not in a financial position at the time to ignore anything the Blue Cross called specific attention to. They needed money! The medical reader is left to conclude whether the Blue Cross' "calling attention," as he says, to medical staff organization, in such manner, under the circumstance did, or did not, constitute deliberate interference with medical practice. This interference started a "putsch."

It was proper for an executive director of a group hospitalization corporation to achieve what he thought was "normal utilization" of the coverage. But when he intruded on the domain of the inspectors for the American College of Surgeons, and "drew attention" specifically to medical staff organization and had it changed, he was decidedly "off the reservation!" He did exactly what the medical profession had been apprehensive of. He interfered with medical practice "in a big way" with a club over the heads of the hospital trustees.

The American College of Surgeons did not start the staff shake-up. The Blue Cross did. The hospitals of Niagara Falls, New York, had been inspected and approved by the American College of Surgeons for a number of years. But it remained for Mr. Metzger to decide "who was who" and "what was what"—and to coerce the hospitals.

Mr. Metzger also said "It is true that a reclassification of physicians and their appointments in various services was carried out by the medical staffs of the hospitals themselves." This statement

[Continued on page 82]

RENAL TUMORS SIMULATING GASTROINTESTINAL DISEASE

SAMUEL LUDASH, M.D., F.A.C.S., New York City

THE relative frequency with which renal tumors have been mistaken for gastrointestinal diseases, because of symptoms relegated only to the intestinal tract, has prompted this communication.

It is common knowledge that disease of one system can produce symptoms entirely in another. It has also been shown that pathology in one kidney might refer its symptoms to the opposite side of the body. Whether these phenomena are known as "reno-gastric reflex," "retroperitoneal syndrome," "renal-digestive reflex arc," or "reno-renal reflex," one thing they have in common—that is, all these terms have a neurogenic background or origin. It has been definitely shown by experimentation that the stomach, small intestine, cecum, transverse colon, kidney, and ureter have the same source of innervation. Such workers as Tixier (1897) and Tixier and Clavel (1929-1932), Head, Chauford, and Debray (1925), Papin (1925), and others have definitely proved this to be so.

Clinicians and research workers throughout the world attested to its occurrence by both clinical and experimental observations. It is only in the last twenty years that the literature has become voluminous with such reports. Cecil, in a study of 300 consecutive urological cases (1920), found that 28 per cent of urinary calculi and 30 per cent of hydronephrosis had only gastrointestinal symptoms. So misleading were these symptoms that 20 per cent of the former series and 30 per cent of the latter had exploratory operations because of inadequate diagnosis.

Similar experiences by other authors were encountered: Chauford and Debray (1925): "Reciprocal connection between renal and biliary lithiasis"; Smith (1933): "Gastrointestinal symptoms in hydronephrosis and renal calculi"; in later years, Abeshouse (1935), Grauss (1936), Beer (1936), Mertz and Hartsock (1936), Smith and Orkin (1939), and others.

It is only with the last-mentioned authors that there has been a study made of a series comparable to that of Cecil's. In Cecil's series four tumors of the kidney were mentioned. In the latter series Smith and Orkin (487 consecutive cases) showed that in 10.2 per cent, or 50 cases, a diagnosis of a digestive tract lesion had been made. One case of renal tumor was encountered. Chute and Kelly (8 cases), although reporting a much smaller series, also encountered one case of renal tumor. Beer, in his monograph, goes so far as to say that "reflex intestinal symptoms are rarely produced by tumor of the kidney."

A study, therefore, was made of all personal and service cases that had been seen at the Beth Israel Hospital for the past five years, either on the urological or other services. All cases were proved to be renal tumors of various kinds by pathologic study. In all, 33 cases were found. The oldest patient was 75; the youngest was 38; the average age was 54. There were 22 men and 11 women. Of the tumors, hypernephromas were the most common (22 cases, or about 65 per cent). Next in frequency were tumors of the renal pelvis (6 cases, or 17 per cent). Of these tumors 4 were malignant (carcinoma) and 2 nonmalignant (benign papilloma or fibrocpitheliomas). There were 3 cases of carcinomas of the kidney (or 8.5 per cent), one case of lipoma of the kidney, and one case of unknown pathology. Five cases (or about 15 per cent) were so masked by other than urologic symptoms and mimicked such diseases as carcinoma of the ovary, carcinoma of the transverse colon, possible gallbladder or liver malignancy, acute suppurative cholecystitis, that exploratory surgery was indicated. In none of these 5 patients was there at any time any indication of any urologic disease. Urines in all were practically negative; an occasional white blood cell was noted in 3. It is interesting to note that all 3 cases of carcinoma were included in this group. The other 2 were hypernephromas. Whether the type of tumor cell has any bearing on reflex activity is questionable.

Group I—Renal Carcinomas

In this group 3 cases were found. Peculiarly enough, none of these ever came to the urologic service. One was operated upon for a suspected ovarian cyst or pedunculated fibroid; the other two for suspected malignancy of the intestinal tract. At no time did any of these cases present a history relegated to the urologic tract. All symptoms pointed to the gastrointestinal system.

Case 1.—C. G., a 50-year-old female, had two admissions to the hospital over a period of a year and a half. Her chief complaint was pain in the epigastric region and about the abdomen for the past two years. This pain was increased with movements of any nature. Upon her first admission she was found to have an umbilical hernia, for which she was operated upon. Her symptoms still persisted. She returned to the hospital a second time, to the Gyne-

Associate Urologic Surgeon, Beth Israel Hospital, New York City.

cological service, one and a half years after her first operation, again complaining of pain in the abdomen. Her menstrual history was normal. This time a mass was found which almost filled the abdominal cavity. It felt movable, distinct from the liver, and extended toward the left, downward almost to the anterior superior spine. Its lowest border was not felt. Upon pelvic examination the mass did not move with the cervix. A preoperative diagnosis of either an ovarian cyst or a pedunculated fibroid was made. Operative findings were a carcinoma of the right kidney with metastases to the liver.

Case 2.—J. L., a 38-year-old white male, admitted to the surgical service, with complaint of loss of weight of 30 lbs. in the past 6 months, and pain in the abdomen, gaseous distention, and cramps. No urologic symptoms.

Physical examination revealed a chronically ill appearing white male. The blood pressure was 118/65, the pulse 90, respirations 22, temperature 100 F. Heart and lungs were negative except for slight dullness at lower left part of the chest posteriorly at the site of an old empyema incision. A firm, nodular mass could be palpated in the left hypochondrium, extending down to approximately the umbilicus on respiration. It was movable and could be ballotted anteriorly from behind.

Complete gastrointestinal series as well as a barium enema were done. All proved negative. The urine revealed a few white blood cells.

An exploratory abdominal operation was performed on July 30, 1936. Postoperative findings: A large carcinoma of the left kidney.

Case 3.—R. R. was a 49-year-old white female, complaining of pain in the epigastric region and nausea but no vomiting. The pain was aggravated by food. The pain sometimes radiated toward the right lumbar region. A mass could be felt upon physical examination in the right upper quadrant of the abdomen. Urine analysis was negative.

Preoperative diagnosis: Possible malignancy of transverse colon.

Operative findings: Carcinoma, right kidney.

Group II—Tumors of the Renal Pelvis

Another interesting feature but directly opposite in reflex activity is the group of tumors of the renal pelvis. Here no case ever presented anything but urologic symptoms—primarily hematuria, of one or more attacks, either scanty or profuse and usually painless, with no referred symptoms to the intestinal or any other tract.

Of the 6 cases found in this series 2 were benign (papillary fibroepitheliomas) and 4 carcinomas. Five came to surgery; one patient died before surgery, in uremic coma.

This type of renal tumor cannot be diagnosed early unless a given history of renal bleeding is encountered and thoroughly investigated. If there is a filling defect, no matter how small, in the renal pelvis, a second investigation during a nonbleeding period should be repeated, and if this condition is found again exploratory investigation of this organ is advisable. Only in this way must we assume our responsibility of detecting early renal tumors.

Case 4.—O. G. was a 65-year-old white man with a complaint of painless recurrent hematuria of one and a half years' duration. The patient had had a sudden episode of hematuria one and a half years before, accompanied by dysuria and occasional episodes of difficulty in starting stream. There was no pyuria. He never complained of any abdominal discomfort. The last attack of hematuria was twenty-four hours before admission. (See Fig. 1.)

Physical Examination: Heart and lungs were negative. There was no palpable mass in the abdomen. Liver, kidneys, and spleen could not be felt. There was tenderness over right kidney region.

Laboratory Data: Urine examination on admission was too bloody for accurate analysis. Nonprotein nitrogen was 50. Retrograde pyelograms revealed a filling defect of the right kidney pelvis. The left side was normal.

Preoperative diagnosis: Tumor of right kidney.

Nephrectomy was performed February 17, 1937.

Pathologic report: Carcinoma of kidney pelvis.

Case 5.—I. C., a 48-year-old white man, complained of bloody urination. For the past two months the patient had noted that his urine was rather dark. The evening before admission he noticed that his urine was frankly bloody. There was no dysuria, frequency, urgency, nocturia, or difficulty in voiding. There was no nausea, vomiting, fever or chills, and no loin or abdominal pain. (See Fig. 2.)

Physical Examination: Heart and lungs were negative. The right kidney was palpable. The left kidney was not felt. There were no masses.

Laboratory Data: Urine examination revealed numerous red blood cells and 8 to 10 white blood cells. Benzidine was 0. Nonprotein nitrogen was 37. Intravenous urography revealed a tumor formation involving the right kidney which dilated the pelvis and distorted its contour. This finding was verified by retrograde study. The opposite kidney pelvis was normal, with excellent function.

Nephrectomy was performed on March 3, 1939.

Pathologic report: Benign papillary fibroepithelioma of the kidney pelvis.

Case 6.—H. R. was a 60-year-old white man, complaining of intermittent pain in the back and hematuria for two years, attacks of severe pain in the right flank with gross hematuria, and passage of clots in the urine for three days. On admission the patient appeared undernourished and exhibited marked pallor and moderate cyanosis. There were dullness, diminished breath sounds, and crackling rales at the base of the right lung which x-ray later revealed to be due to thickened pleura with productive changes in the bronchial walls. The heart was moderately enlarged. Heart sounds were rapid, with a loud musical systolic murmur at the apex, transmitted to the axilla and the base. There was marked tenderness over the right kidney, which was not palpable. The urine was grossly bloody and



FIG. 1. Group II. Case 4 Large filling defect proved to be carcinoma of kidney pelvis

also contained numerous white blood cells The red blood cell count was 4,800,000; hemoglobin was 89; nonprotein nitrogen was 40.

On cystoscopy, blood could be seen pouring from the right ureteral orifice. A catheter could be introduced without obstruction. Neither retrograde pyelogram nor intravenous urography showed visualization of the right kidney. Intravenous indigo-carmine was returned in five minutes from the left side, but not on the right.

Operation: The right kidney was approached by the lumbar route. The kidney was found to be adherent, moderately enlarged, and engorged. The pelvis was incised but no tumor tissue could be curretted out. Nephrectomy was performed, and on sectioning the kidney a large adherent blood clot with tumor-like tissue was found.

Pathologic Report: Papillary fibro-epithelioma of kidney pelvis.

Case 7.—M. R., a 68-year-old white man who had been well until four weeks before admission, developed sharp, lancinating, colicky pain in the left lumbar region, radiating to the left hypochondrium and the angle of the left scapula. Hematuria developed simultaneously; frequency and nocturia (six to seven times) developed shortly afterward. He had lost 15 to 20 pounds in weight in the preceding four weeks. His previous history was completely negative.

Examination revealed a poorly nourished white adult, chronically ill male. Heart and lungs were completely negative. Blood pressure was 148/78.

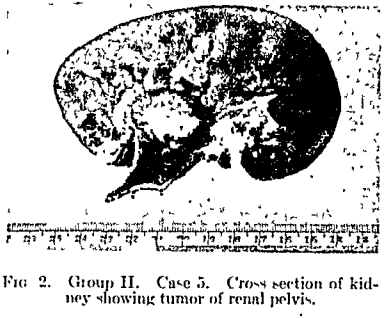


FIG 2. Group II. Case 5. Cross section of kidney showing tumor of renal pelvis.

Abdominal Examination: There was costovertebral tenderness on the left. The left kidney was enlarged and palpable but nontender. The abdomen was otherwise negative. The extremities were negative The prostate was small, smooth, and moderately enlarged.

Laboratory Data: Nonprotein nitrogen was 42 Glucose was 117. A Wassermann test was negative The urine was grossly bloody. There was a 3 plus reaction for albumin. The specific gravity was 1.026. On cystoscopy the appearance of the left ureteral orifice was normal in position. A catheter passed to 21 cm. with difficulty. Ten cc. of cloudy, bloody urine were retained on that side. No indigo-carmine came from the left side in thirty minutes.

Preoperative Diagnosis: Tumor of the left kidney.

Nephrectomy was performed.

Operative Findings: Squamous-cell carcinoma of the kidney pelvis.

Case 8.—M. K. was a 48-year-old man, with a history of having been kicked by a horse forty years before, following which a mass appeared in the left upper quadrant, associated with the occurrence of attacks of dull, gnawing pain in the left flank. He was admitted to the hospital thirty years before for similar complaints but refused operation and signed out after two days with the diagnosis of enlarged kidney. There had been no recent increase in the size of the mass. The pain had become more constant and severe in the previous month and he had become weaker and bedridden during this time. (See Fig. 3)

Physical examination revealed a cachectic-appearing male, with slight exophthalmos and an icteric tinge to the sclerae. The tongue was thick and ulcerated. The pharynx showed erythematous mottling. The teeth were poor. There were enlarged, hard lymph glands in the left supraclavicular fossa and enlarged lymph nodes in left axilla, which were not tender. A large mass was seen in the left upper quadrant, which did not move on respiration. It was hard and smooth and extended out from the costal margin to below the umbilicus, filling the entire left upper quadrant. It was only slightly



FIG. 3. Group II. Case 8. Flat plate shows large calcific shadow left kidney. Autopsy revealed carcinoma of kidney pelvis associated with calculus pyenephrosis.

tender and there was some left costovertebral tenderness, somewhat ballotable. A loop of gut could be felt running vertically across it. The liver could not be felt, and there was no ascites. Heart and lungs were negative. The rectal examination was negative.

Laboratory Data: The specific gravity of the urine varied from 1.006 to 1.020. It was alkaline, with 2–4 plus albumin, and was loaded with white blood cells and many red blood cells. The red blood cell count was 3.07 million. Hemoglobin was 69 per cent; the white blood cell count was 39,700, with 85 per cent polymorphonuclear leukocytes with 14 staffs, 13 lymphocytes, and 2 monocytes. The sedimentation rate was 100 mm. A Wassermann test was negative. The icteric index was 5.6. Glucose was 118. Nonprotein nitrogen was 150. Total protein was 7.5 Gm. The albumin-globulin ratio was normal. No tubercle bacilli appeared in catheterized urine specimen. A flat plate of the abdomen revealed a large mass occupying the entire left half of the abdomen, extending from the first lumbar vertebra to the level of the interspinous line. Within this mass are numerous calcific shadows varying from 0.4 cm. to $2^1/_2$ cm. Many of these stones have a laminated appearance. Above the shadow of this mass was the shadow of another mass. Intravenous urography showed very much diminished function, with no dye on the left side. X-ray of the chest revealed numerous calcific deposits at the roots of both lungs. The aorta appeared to be sclerotic. Blood pressure was 110/64.

Course: The patient came in to the hospital with a temperature of 102 F., which fell to normal on the third day. He was drowsy and slept a great deal. He was very uncooperative and refused everything that was attempted. His nonprotein nitrogen rose from 150 to 272 after two weeks, and his creatinin was 5.4. Despite the normal temperature, the white count remained elevated at 28,000, with 94 per cent polymorphonuclears. A biopsy was done on a supraclavicular node and the diagnosis was metastatic carcinoma of indeterminate origin. An attempt to do a barium enema was unsuccessful. Because of the lack of cooperation of the patient, intravenous therapy could not be continued and the patient was maintained on sedatives. He voided very little during the day, the amounts varying between 150 and 450 cc., despite a much larger intake of liquid. However, at no time was there any evidence of edema.

It was difficult to decide what the mass was. It was thought that because of the urinary changes and the high nonprotein nitrogen this mass might be kidney. In order for there to be a high nonprotein nitrogen, it was presupposed that there was involvement of the other kidney. Polycystic kidney with atrophy of the opposite kidney was suggested. Another suggestion was that this mass may have been spleen or perhaps a mass of retroperitoneal nodes. If so, then the possibility of a splenic vein thrombosis or retroperitoneal lymphosarcoma could account for the large mass.

The patient became drowsier and went rapidly downhill. He vomited on several occasions. There was a marked uremic odor to the breath. He developed ulcerations in his nose and on his tongue. He refused cystoscopy. His temperature became subnormal during the last week and he died of uremia two and a half weeks after admission. On the day before death he became dyspneic and many moist rales were heard throughout both lung fields. There were also twitchings. A congo-red test showed no evidence of amyloidosis.

Autopsy revealed that the mass was a very large kidney which contained many large stones and a large amount of pus. There was evidence of carcinoma within the pelvis of the kidney. There was no kidney on the right side. There were metastases to liver and lungs as well as to the mesenteric nodes. The spleen was slightly enlarged and posterior to the mass. The omentum and a loop of gut ran across the mass.

Case 9.—H. B., 63 years old, complained of hematuria of one year's duration. Three days before admission the patient felt pain in the right loin, followed by gross hematuria. Hematuria continued up to the time of admission. The past history was negative except for suprapubic prostatectomy in New York Medical Center two years before. He had been symptom-free since.

Physical Examination: The temperature was 99 F. The pulse was 116. Blood pressure was 205/130. The patient was a well-preserved white man, somewhat pale and anemic. The pupils re-

acted normally to light and accommodation The heart was enlarged to the left The aortic second sound was greater than the pulmonic second sound There was a systolic murmur at the apex The lungs were normal except for moderate emphysema There was mild clubbing of the fingers The abdomen revealed an operative scar and mild costovertebral tenderness on the right The kidneys were not palpable Rectal examination was negative Examination of the genitalia revealed a firm, irregular mass in the right testicle, with small hydrocele

Laboratory Data The urine was grossly bloody Hemoglobin was 64 per cent The red blood cell count was 3 05 million Nonprotein nitrogen was 60 Cystoscopy revealed grossly bloody urine coming from the right ureteral orifice Indigo carmine appeared in normal time, in concentration from the left side but not from the right Bloody urine came from the right side Kidney, ureter, and bladder examination and retrograde pyelography were done but were not satisfactory Intravenous pyelogram showed nonvisualization of the right side A retrograde pyelogram repeated showed marked deformity, with a filling defect of the right renal pelvis

On February 18, 1939, a right nephrectomy was done The pathologic report was carcinoma of the renal pelvis The patient made an uneventful recovery except for occasional elevation of the nonprotein nitrogen Before discharge, a right ureterogram was performed which showed no evidence of tumor

Group III—Lipomas

This type of tumor of the kidney really has no place in this discussion as it is not of a purely tumor nature It usually represents the replacement of destroyed renal tissue by fat and is most commonly found associated with chronic suppurative pyelonephritis or renal calculi It may sometimes be so marked that replacement may be complete, except for the renal pelvis surrounding a calculus It is for these reasons, I believe, that particularly all such tumors will give symptoms referable to the intestinal tract some time during their course

Case 10—M W was a 60-year old woman with history of pain in the epigastric region associated with nausea, which was aggravated by eating She had no urologic complaints She was sent to the hospital for observation

Physical examination A large mass was felt in the left flank, extending around anteriorly to the umbilicus The *urine was negative* but for a trace of benzidine and an occasional white blood cell Examination of the chest was negative A flat plate revealed a calculus in the region of the pelvis of the left kidney and also a small calculous fibroid in the pelvis Intravenous pyelogram was performed in order to determine whether the mass in the flank was kidney A pyelogram revealed that the left kidney was hydronephrotic, considerably enlarged, and that there was a large calculus near the ureteropelvic juncture At cystoscopy, no indigo-carmine could be obtained from the left kidney after eighteen minutes' observation However, from the right it appeared in four minutes in fair concentration

On July 7, 1938, on operation, the left kidney was found to contain no normal renal parenchyma and was surrounded by dense adhesions and a large perirenal lipoma

Postoperative Diagnosis Lipoma of the left kidney

Group IV—Tumor of Unknown Pathology

Case 11—A S, a 52-year-old white man, complained of attacks of vomiting of three months' duration The vomiting was associated with epigastric distress, which usually occurred in the morning and was not related to meals During the previous three months the patient had had moderate constipation, otherwise his past history was irrelevant

Physical examination revealed a well-developed male, not acutely ill The blood pressure was 140/70, pulse rate 96, respirations 26, temperature 98 8 F *Heart and lungs were negative, except for a* rough systolic murmur at the apex and over the aortic area In the left upper quadrant there was a large, firm, ballotable mass, filling the entire left side of the abdomen to the level of the iliac crest Rectal examination was negative

Laboratory Data The urine revealed 1 to 3 red blood cells per high-power field and was negative for benzidine The red blood cell count was 4,000,000, hemoglobin was 70 per cent The white blood cell count was 15,500, with a normal differential The sedimentation rate was 80 mm in forty five minutes Nonprotein nitrogen was 28

X-Ray Examination Intravenous urography showed nonfunction of the left kidney Retrograde pyelography revealed the calyces of the left pelvis to be dilated and elongated There was displacement of the upper third of the ureter toward the midline

On February 3, 1939, through a transperitoneal approach, an exploratory operation was attempted and an enormous retroperitoneal tumor was found to be occupying the left upper quadrant Tumor *tissue was taken for biopsy and the capsule of the* tumor sac was marsupialized so that the tumor was not located just below the anterior abdominal wall

Pathologic Report Malignant tumor of unknown nature

Eighteen deep x ray treatments were given and the tumor decreased markedly in size so that it was no longer palpable The patient made an uneventful convalescence and was discharged on March 29, 1939

Group V—Hypernephromas

This was the most common type of tumor found in our series (22 cases) Of this number 10 cases (45 per cent) presented themselves with only gastrointestinal symptoms and 12 (55 per cent) with hematuria as the first symptom Five



FIG. 4. Group IV. Case 15. Retrograde pyelogram of patient shown in Fig. 14—nephrectomy proved it to be hypernephroma.

of the 10 cases were first observed on the gastrointestinal service, where they had a complete series of gastrointestinal and gallbladder tests. Three others had an abdominal exploration on the surgical service, because of symptoms suggestive of an intra-abdominal tumor. Another died before any surgery could be done.

Only 4 case histories of this series will be illustrated, none of which came to the urologic service. Two had intravenous urograms done and were reported to have normal renal pelves. Another had a retrograde pyelograph taken only after an incision into the scalp for a sebaceous cyst had revealed a mass seemingly associated with the brain. The operation was immediately stopped. The fourth died in uremic coma before surgery could be instituted.

Case 12.—H. R., aged 58 years, entered the hospital complaining of pain in the left lumbar region for fifteen years, as well as abdominal distention and lower abdominal pain, and right upper quadrant pain for one day.

On examination the patient looked emaciated and the right upper abdomen was filled with a somewhat tender, firm, slightly nodular mass.

Intravenous urography showed no kidney pathology, but showed the right kidney to be markedly displaced by a mass in the right upper quadrant. All other x-ray examinations were negative except the gastrointestinal series, which revealed a distortion of the stomach and duodenum caused by external pressure.

A clinical diagnosis of metastatic carcinoma of the liver was made, but because of the duration of the mass an exploratory operation was advised by the medical consultant in the hope that the mass was not malignant.

The general condition of the patient before the operation was only fair. At operation a mass weighing 1,100 Gm. was removed from the region of the right adrenal, reported as hypernephroma. Following the operation the patient went into shock and in spite of immediate transfusion he died twelve hours after the operation.

Case 13.—L. P., a 60-year-old man, was admitted with complaints of pain in the right upper quadrant associated with constipation and vomiting on the first day. His temperature on admission was 103.6 F., pulse 108, respirations 28.

Examination revealed a generally soft, nontender abdomen, except for a very tender mass extending down from the right upper quadrant to the umbilicus. The blood count: 33,700 white cells, 85 per cent polymorphonuclears with 17 young staffs. Urine examination revealed many red blood cells. A Wassermann test was negative. The nonprotein nitrogen was 35. It was felt on admission that the patient had an acutely suppurative gallbladder.

Cholecystography was done one week after admission, the acute symptoms having subsided and the blood count having fallen to 8,000 white cells, with 74 per cent polymorphonuclears of which 4 were staffs. The plates showed normal gallbladder shadow, with a large oval mass beneath the gallbladder. Retrograde pyelography and intravenous urography were done, showing normal kidney pelves on both sides. The kidney on the right was displaced outward and to the left. There was no evidence of calculus. A mass was seen displacing the right kidney. In view of the persistence of the mass an exploratory laparotomy was done, at which time a huge hypernephroma of the right kidney was found. This was removed transperitoneally. The tumor was adherent to the peritoneal reflections on the outer aspect of the colon and also had to be dissected away from the gallbladder. There were also dense adhesions to the adrenal nerve. There was also a perirenal hematoma present which was removed en masse with the kidney tumor. A stab wound was made in the right loin in the retroperitoneal space, which was drained.

Postoperatively the patient made a good recovery on the first day, but voided only 3 ounces of urine in twenty-four hours. Nonprotein nitrogen was 69 on the second day. Despite all forms of stimulative treatment, the patient voided only 3 ounces of urine in three days and developed pulmonary edema and meningeal symptoms and died on the third postoperative day.

Case 14.—I. L., a 76-year-old man, first came to Beth Israel Hospital complaining of rectal pain, constipation, and abdominal cramps on June 28, 1939. Urine examination was entirely negative. A rectal polyp was found and removed. Complete physical

examination was otherwise negative He was readmitted on August 18, 1939, two months later, complaining of constipation and cramplike feeling in abdomen, but there were no urinary symptoms. At this time an abdominal mass was found and a tentative diagnosis of carcinoma of the intestinal tract was made Colon enema and gastrointestinal work-up was negative. A few red blood cells were found in the urine A genitourinary consultation revealed a possible tumor of the left kidney X-ray of the chest showed metastases to the lung The patient was not operated upon because of rapid debility and uremia, from which he expired

Case 15.—S. L., a 55-year-old man, although complaining of and treated for gastrointestinal symptoms for five years prior to his present complaint without any relief, now sought advice because of a small mass on the top of his head, which was thought to be a sebaceous cyst. He was referred to a very competent surgeon, who attempted to remove this under local anesthesia, but immediately realized after his initial incision that he was dealing with a tumor mass. X-ray of the skull and a biopsy specimen showed involvement of the brain due to hypernephroma. He was then advised to have a urologic investigation. He never complained of any urologic symptoms but with cystoscopic and pyelographic studies a diagnosis of tumor of the left kidney was made This was removed and found to be a hypernephroma. (See Fig 4.)

Comment

It is quite apparent from this survey that one should not be satisfied with a routine study of one system where intermittent symptoms persist in the presence of negative roentgenographic and laboratory findings. The disease must be looked for in other systems. Only through a study of "system pathology" or "system diagnosis," as suggested by Von Lichtenberg and Winsbury-White, can one readily appreciate the fact that a disease process may involve more than one organ or one system With the advent of intravenous urography, all previous objections to cystoscopic inspection are now overcome. Yet too much reliance cannot be given this method. Retrograde pyelograms should always follow the use of intravenous urography where there is any doubt as to the exact interpretation. One method should be an adjuvant to the other. Never should it be taken for granted that either one replaced the other.

We feel relatively certain from this study of renal tumors that any case presenting disturbing abdominal symptoms with negative findings should have a complete urologic investigation. In some cases, as illustrated above, even if this is done it is impossible to make a definite diagnosis. Exploratory operations were necessary to arrive at a conclusion.

Summary

1 A survey of 33 cases of renal tumor are reported

2 Of this number, hypernephroma (65 per cent) is the most common.

3 Those cases in our series of tumor involving the renal pelvis (17 per cent) failed to cause any gastrointestinal reflex symptoms. Whether this is coincidental or not is uncertain, but it is mentioned for what it may be worth

4. The reflex activity was directly opposite in the cases of carcinoma of the kidney. Here all simulated gastrointestinal or other intra-abdominal diseases for which laparotomies were performed.

5 Twenty-three cases (or 69 per cent) of the entire series had gastrointestinal symptoms. This also includes symptoms referable to the gallbladder.

6 A fair number of these showed no urologic findings

SOCIAL HYGIENE DAY TO BE FEBRUARY 7, 1945

The American Social Hygiene Association has announced that the annual observance of National Social Hygiene Day is scheduled for Wednesday, February 7, 1945

As in previous years, educational efforts will be concentrated during the entire week in an endeavor to promote a [illegible] of the need for combat-

[illegible] ygiene Association will send to any group which is planning a meeting their new kit of "Social Hygiene Day Program and Publicity Aids."

The kit includes press releases, platform talks, radio scripts, drafts of proclamations for use by mayors or governors, new educational leaflets, a poster for advertising meetings, news about motion

[illegible] York 19, New York.

MENTAL HYGIENE COMMITTEE HONORS GENERAL KIRK

The National Committee for Mental Hygiene has elected Maj. Gen Norman T Kirk, Surgeon General of the Army, as one of its six new members, in recognition of his "unusual awareness of the importance of skilled psychiatric treatment in the Army."—*J.A.M.A., Nov. 25, 1944*

BRONCHIAL ASTHMA

A Report of 141 Cases

EMANUEL SCHWARTZ M.D., F.A.C.P., Brooklyn

THERE were 141 cases of asthma admitted to the medical service of Long Island Hospital as service and private cases over a five-year period from 1937 to 1941, inclusive. There were 18 cases in 1937, 18 cases in 1938, 30 cases in 1939, 24 cases in 1940, and 51 cases in 1941. In this group the preliminary causative factors were specific antigens, such as inhalants, foods, and bacteria, or a combination of all three. The infections were characterized by purulent sputum or evidence of chronic sinusitis, and were secondary and superimposed on primary allergic bronchial asthma.

There were 78 women and 63 men.

The tabulation of the ages of the patients at the time of admission, according to decades, was as follows:

14–20	21–30	31–40	41–50	51–60	Over 60
11	19	30	34	36	11

Twelve patients dated the beginning of their symptoms to the first decade of life, and in 65 patients, or 46 per cent of the group, the symptoms began between the ages of 10 and 40. They started between the ages 41 and 50 in 31. Onset in 26 occurred in the years between 51 and 60; 7 were over 60 at the onset. The duration of symptoms ranged from two and a half months to fifty-two years. Seven patients had their initial attack following pneumonia, 26 following an acute upper respiratory infection, and 23 stated that a "cold" usually ushered in an attack.

Family History

There was some evidence to indicate that there was a tendency to inherit susceptibility to asthma rather than any other allergic condition. Thirty-seven of the 141 patients gave a family history of asthma.

Associated Allergic Manifestation

The associated manifestations of allergy in these cases were as follows:

Perennial allergic rhinitis	24
Seasonal hay fever	20
Urticaria	13
Allergic eczema	5
Gastrointestinal allergy	6

Sixty-eight patients, or 41 per cent of the group, gave a past personal history of an associated allergy.

From the Department of Medicine, Long Island Hospital.

Symptomatology

The outstanding symptoms, irrespective of the type of asthma, were dyspnea, wheezing respirations, and cough. All 141 patients gave a history of paroxysmal attacks of cough, wheezing respirations, and dyspnea; 11 patients had hemoptysis; 9 patients were markedly cyanotic; 6 patients complained of vomiting and epigastric distress. The outstanding symptom was dyspnea, accompanied by a wheezing type of respiration. Cough was the next in importance, and was not absent in any of the cases. It usually preceded the attack of dyspnea or wheezing. It was noted that as the attacks proceeded the cough in these cases increased in severity, and the patients found it difficult to bring up any expectoration. Toward the end of each attack the cough became looser, and the expectoration less difficult. With the disappearance of the wheezing and dyspnea the cough, in most cases, lasted several days. All patients complained of expectoration during an attack. The expectorated matter was usually thick and gelatinous in character. It usually was colorless, unless there was an associated bronchial infection, in which case it was yellowish or greenish. The hemoptysis occurring in 11 patients was due to violent coughing efforts; 6 of these patients had bronchiectasis. One patient whose x-ray examination showed active pulmonary tuberculosis did not have hemoptysis even during a severe attack. Coryza either preceded or accompanied the onset of the paroxysm in 24 cases. It consisted chiefly of sneezing and a profuse watery nasal discharge. These cases were diagnosed as allergic rhinitis. Pain in the chest occurred in 5 patients; in 2 patients it was caused by a thickened pleura, and in the other 3 it was muscular in origin, because of prolonged and repeated attacks of cough and dyspnea. Of the 13 patients with associated urticaria, 4 complained of it during an asthmatic attack. In 3 it was caused by aspirin sensitivity, and in the others the causes were unknown. The duration of the attacks varied from one half hour to three weeks, and the duration of the intervals was between twenty-four hours and ten months.

Physical Signs

Physical signs found on examination of these patients with asthma depended largely upon the time at which the examination was made, and

upon the duration and character of the asthmatic state All 141 patients exhibited on first examination physical signs characteristic of an asthmatic attack The typical wheeze in most of the patients was audible, even without a stethoscope The prolongation of both phases of the respiratory cycle, particularly of the expiratory phase, was noted Sibilant and sonorous rales were heard, usually over the entire chest Seventeen patients showed evidence of emphysema on examination One patient had clubbed fingers and toes

Nose and Throat Examination—The nasal septum was noted to be deviated in 17 cases engorgement or enlargement of the turbinates was present in 29 cases, with polyp formation in 16, 22 had swollen and pale mucous membrane and toxic mucosa was present in 3, 22 patients had had successful tonsillectomies performed previous to admission, 22 had diseased tonsils and on 8 of these tonsillectomies were performed without any effect on the severity or number of asthmatic attacks

Examination of Sinuses—An existing sinus infection was determined by clinical and roentgenologic means, by the nose and throat and x-ray departments, in 32 out of 60 cases so examined The final end results of rhinologic treatment in our series were difficult to estimate Although beneficial results were obtained in occasional cases, there were comparatively few patients in whom relief from asthma was complete or lasting Closer cooperation between the internist and the rhinologist in the thorough study and treatment of these patients is still essential if the best results are to be obtained

Chest Examination—The pulmonary findings were summarized as follows 96 chest x ray plates were taken, 14 were negative, 38 showed chronic bronchitis, 6 showed bronchiectasis, 28 showed emphysema, 2 showed fibrotic thickening, one showed congestion, one showed active tuberculosis, one showed an old tuberculous lesion, 2 showed pleuritis, 2 showed thickened pleura one showed eventration of the diaphragm, one showed cervical rib, and there was one case of pneumoconiosis and one of bronchopneumonia

Other Diagnoses

Other diagnoses noted by physical examination in this series were one case of bronchopneumonia, 10 cases of hypertension, one case of pneumoconiosis, 3 cases of diabetes, one case of cor pulmonale, 9 cases of arteriosclerosis with myocardial damage, one case of right bundle-branch block, one case of rheumatoid arthritis, 2 cases of syphilis, one case of active tuberculosis, one case of mitral regurgitation and stenosis, 3 cases of inguinal hernia These conditions had no relationship to the severity, duration, or number of asthmatic attacks It is of interest to note that there was only one case of active tuberculosis in this series

Laboratory Findings

Urine—Examination of the urine showed nothing characteristic Three cases showed positive reactions to sugar

Blood Pressure—The blood pressure in 10 cases was high, normal in 123 cases, low in 8 cases

Blood Count—In all cases differential blood counts were performed Values ranging from 0 to 16 per cent eosinophils were encountered, although neither of these figures was common, 86 of the patients had a count of 5 per cent or under, 28 patients had an eosinophilia of 10 per cent or over, 27 had an eosinophilia of 5 to 10 per cent The average count was 6 8 per cent It was impossible to differentiate on the basis of the eosinophil count between infective and noninfective asthma

Blood Chemistry—The blood chemistry in 70 patients showed normal values for urea, uric acid, and creatinine The blood sugar ranged from 60 mg to 122 mg in 62 cases, and in the 3 diabetic patients readings were recorded as follows 250 mg , 280 mg , and 320 mg Only 5 patients had a blood sugar below 80 mg one was 60 mg , one 72 mg , one 78 mg , one 75 mg , and one 79 mg

Analysis of Gastric Contents—Examination of the gastric contents was done in 18 patients The values for free HCl ranged from 25–80 degrees, and for total acidity from 40–100 degrees

Basal Metabolic Rate—The basal metabolic rate was determined in 15 patients, and ranged from −12 to +19, one case was +19, one case was +17, and one case −12, the remainder being within the −10 to +10 limits

The blood Wassermann, Kahn, or Hinton tests were done in 141 cases One patient had a positive Hinton, another patient who had tertiary syphilis gave a history of a 4-plus spinal Wassermann previous to entering the hospital 140 patients had negative serology, including the patient with tertiary syphilis

Summary

1 One hundred and forty-one cases of bronchial asthma admitted to the medical service at Long Island College Hospital from 1937 to 1941 are studied statistically from the standpoint of sex, age, family history of allergy, associated allergic manifestations, symptomatology, physical findings, nose and throat examination, x ray of chest, eosinophilic counts, blood chemistry,

gastric analysis, basal metabolism, and serologic examinations.

2. There were 78 women and 63 men.

3. Sixty-five patients dated the beginning of their symptoms between the ages of 10 and 40; 12 during the first decade of life; 31 between 41 and 50; 26 between 51 and 60; and 7 after 60 years of age.

4. Thirty-seven of the 141 patients gave a family history of asthma.

5. Sixty-eight patients, or 41 per cent of the group, gave a past personal history of an associated allergy.

6. One hundred and forty-one patients complained of repeated paroxysmal attacks of difficult breathing, cough, and wheezing of the chest; hemoptysis occurred in 11; pain in the chest in 5; and symptoms of sneezing or a profuse watery nasal discharge, or both, either preceded or accompanied the onset of an attack in 24 cases.

7. The entire group of 141 patients was examined during an attack and showed the typical physical findings of bronchial asthma.

8. An existing sinus infection was present in 32 out of 60 patients so examined.

9. Of 96 chest x-ray plates taken, 14 were negative; 38 showed chronic bronchitis; 6 bronchiectasis; 28 emphysema; 2 fibrotic thickening; one congestion; one active tuberculosis; 2 pleuritis; 2 thickened pleura; one eventration of the diaphragm; one cervical rib; one pneumoconiosis; and one bronchopneumonia.

10. Three patients in this group had diabetes mellitus.

11. The eosinophil counts were summarized as follows: 86 patients had counts of 5 per cent or under; 27 had an eosinophilia between 5 and 10 per cent; and 28 had an eosinophilia of 10 per cent or over. The average count was 6.8 per cent.

12. The blood pressure was normal in 123 cases, high in 10, and low in 8.

13. The blood sugar in 70 cases so examined ranged from 80 mg. to 122 mg. in 62 cases, and in the 3 diabetic cases 250 mg., 280 mg., and 320 mg. Five cases showed a blood sugar value below 80.

14. The values for free hydrochloric acid and total acidity in the gastric contents were within normal range in 18 patients so examined.

15. The basal metabolic rate, determined in 15 patients, ranged from −12 to +19.

16. All 141 patients had negative serology for syphilis.

295 New York Avenue
Brooklyn, New York

"ADVANCES IN MEDICINE" SERIES AT MT. SINAI HOSPITAL

A second series of lectures on "Advances in Medicine" is being given in Blumenthal Auditorium, 1 East 99th Street, New York 29, New York, by the medical staff of Mt. Sinai Hospital on Wednesday evenings at 8:30 P.M.

On January 10, Dr. Joseph H. Globus, associate neurologist, will speak on "Recent Advances in Our Knowledge of Cerebral Vascular Accidents." On January 24 Dr. Richard Lewisohn, consulting surgeon, will discuss "Recent Advances in Cancer Research." The lecture on February 7 will be "Recent Advances in the Treatment of Glaucoma" by Dr. Robert K. Lambert, attending ophthalmologist. On February 21 Dr. Murray H. Bass, attending pediatrician, will give a lecture entitled "Recent Advances in Pediatrics." Dr. Isidor C. Rubin, attending gynecologist, will speak on "Recent Advances in the Study of Sterility" on March 7. On March 21 Dr. Richard M. Brickner, associate neurologist, will discuss "Recent Advances in Cerebrospinal Scleroses." On April 4, Dr. Abraham Hyman, attending surgeon, will speak on "Recent Advances in Diseases of the Urinary Tract." The lecture on April 18 will be "Recent Advances in Experimental Hypertension and Therapy" by Dr. Bernard S. Oppenheimer, consulting physician. Dr. Harry Sobotka will close the series on May 2 with a lecture entitled "Recent Advances in the Physiology of Vitamin A."

PUBLIC HEALTH CANCER ASSOCIATION FORMED

The Public Health Cancer Association was recently organized to meet the particular need of persons engaged in cancer control activities in federal, state, city, and other official agencies. Active membership is limited to professional workers in such official cancer programs, and officers include Drs. Herbert L. Lombard, Boston, president; Raymond V. Brokaw, Champaign, Illinois, vice-president, and Morton L. Levin, Albany, New York, secretary-treasurer. Included in the membership of the executive committee are Drs. Frank L. Rector, Lansing, Michigan, Louis C. Kress, Albany, New York, and Edmund G. Zimmerer, Des Moines, Iowa.

Representatives attending the organization meeting felt that the American Association for Cancer Research adequately covered that field, that the American Cancer Society is chiefly engaged in lay educational work, and that the new organization would meet the particular needs of full-time employees engaged in cancer work in the official agencies. It was also felt that such an association would be of value in furthering cancer control by conducting an annual meeting and a cancer symposium in connection with the annual session of the American Public Health Association. While representatives from about eleven states attended the organization meeting, the membership will not be limited solely to this group.—*J.A.M.A., Nov. 25, 1944*

SCOPE OF AN INDUSTRIAL MEDICAL SERVICE

HAYNES HAROLD FLLLOWS, M D , New York City

EMERGENCY medical care for workers is increasing on such a scale that today it is commonplace and expected In scope it may be as simple as a first aid kit available to all and sundry who self treat, using a little first aid knowledge, or it may be so extensive as to supply complete medical, surgical and hospital care for employees and their families And while the art of medicine is as old as civilization, industrial medicine, so-called, is a relatively recent development and its rapid expansion a current situation

Probably our experience at the home office of the Metropolitan Life Insurance Company in New York City is a typical example of how an industrial medical service comes into being Prior to 1911 we had no real medical service for our employees, although advice and emergency treatment were available through doctors who were doing regular life insurance work and who carried on the service to employees as a sideline In the spring of 1911 we had at the home office a trained nurse who was assisting in the formulation of plans for building and equipping what was to be our sanatorium at Mount McGregor, New York As soon as it became known among the employees that there was a nurse in the Medical Division, they began to come to her for advice about their personal problems and for first aid care It became apparent quickly that a doctor would be of great help because so many of the questions and conditions were beyond the capacity of a nurse Consequently, after some discussion and planning a small room was fitted up and equipped and a full-time nurse and part-time physician were on duty each day Even this was soon inadequate and a well equipped and amply large dispensary was the next step forward, all of this taking place within a year In 1914 the pre-employment physical examination of applicants for employment and an annual physical examination for all Company employees were decided upon, and increased space equipment, and personnel were necessary The chief purpose of both of these activities was to detect unrecognized abnormalities among average healthy persons at a time when correction might logically be expected to be easiest and most beneficial This was the beginning of the present health and medical welfare program for employees which has gradually increased to our present service

Today the health program for home office employees is administered by a section of the medical division known as the Medical Rest Rooms There is a medical and surgical dispensary, separate quiet rooms for ill male and female employees temporarily indisposed or waiting to be sent home or to a hospital, rooms equipped for eye testing, and physiotherapy rooms for the administration of infrared and ultraviolet light treatment and diathermy, and for teaching exercises for the correction of postural defects when requested by a physician

The laboratory facilities available include those for urinalysis, basal metabolism tests, blood counts typing and serologic examinations, electrocardiography, and x-ray examination Fluoroscopes are available in rooms adjacent to the examining rooms, and these are used routinely by all physicians when examining ill employees or when making physical examinations

The medical rest rooms are under the supervision of a full time physician The medical staff is composed of men and women selected for their general medical qualifications and specialized training who are on duty part-time, some in the morning and some in the afternoon In addition there are two full-time specialists, one in psychiatry and one in tuberculosis While much of our work is of a minor or routine character, yet it is a great advantage to have practically all of the recognized specialties represented in our "group"

The service available to employees consists of medical advice, first aid or emergency treatment, diagnosis, and the completion of special laboratory examinations, particularly in cooperation with, or at the request of the family doctor There is no attempt or intent to act in the capacity of the private or family physician

A nursing staff is an integral part of the organization and in addition to the nurses on duty in the rest rooms at the home office, there are nurses who visit home office employees during absences from work because of illness

A record room is maintained, where the complete medical history of each home office employee is kept on file For each individual there is a folder containing the pre-employment examination, each annual examination, notes made at each dispensary visit, reports of all laboratory, electrocardiographic, and x-ray examinations, and a record of all absences due to illness with the reports of the visiting nurse The record room is in charge of a trained statis

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Assistant Medical Director Metropolitan Life Insurance Company

tician who makes monthly and yearly reports, and also reports of special studies.

When an employee reports for duty after an illness, he goes first to the medical rest rooms, where he must receive medical approval before returning to work.

Employees may come to the rest rooms at any time during the day if they feel ill or wish advice upon a personal health problem. They first report to the record room and then proceed to the dispensary. The medical record of each employe is taken from the file and is sent to the doctor whom the employee consults. Most cases are of a trivial character and after some simple treatment or medication the patient is able to return directly to work. Others, however, are too ill to continue at the office and are advised to go home and consult the family physician if necessary. As one would expect in a group of this size, we frequently see seriously ill persons who need immediate hospitalization, which we arrange for, taking the wishes of the clerk, his family, or family doctor into consideration.

It is scarcely possible to have a fully equipped medical division without taking advantage of the unique opportunity to make practical observations of various kinds. The reports of the study of some of our problems have been made available from time to time to industry and the medical profession, and three will be summarized here.

In keeping with our interest in the search for unrecognized disease, we were trying to find a simple and satisfactory method to carry out the routine serologic testing for syphilis as early as 1930. To examine a cooperative patient in private practice and to carry out a case-finding study on thousands of working persons of average health are two different problems. The requirements for such a program are maximum accuracy, reliability, lack of uncomfortable or disabling wound, ease of collection and use of a small amount of blood, a simple technic, low cost, and, most important, a method of taking care of the positive reactors. After considerable discussion we decided upon a microprecipitation test of a specimen of blood collected from a finger puncture and have used, singly or in combination, the Kahn, Kline, and Mazzini tests.

Anticipating the possibility of embarrassing moments in the disposition of persons with tests found positive in a routine examination, we devised a procedure which we thought would bring no objections. A doubtful or positive test was checked in two weeks and if it remained doubtful or positive the person was asked to come to the office, where it was explained that the recent blood test gave an unsatisfactory result; why, we did not know, inasmuch as there are many reasons for such a result, some of no importance and some of real significance. In order to answer satisfactorily all the questions involved, an appointment was always made for the employee to see a syphilologist who had the facilities and the experience to arrive at a diagnosis and, it was also explained, this would be without expense to the employee. Following this careful and consistent diagnostic workup, the cases were classified as specific, doubtful, or nonspecific, and a report was sent to the family doctor whenever requested. Those few in need of treatment were advised as to the length of treatment and the approximate cost, and selected the method which he could best afford—private physician or clinic. Of all those examined only about $^1/_2$ of 1 per cent were diagnosed as specific and in need of treatment.

All patients with positive or doubtful serology are tested annually and from this follow-up study a good deal of information regarding "false positives" has been gained. It is of more than passing interest that the consultant who so generously worked out a solution to this problem with us was selected as Chief of the Division of Serology at the Army Medical School and has supervision of the same problem for the Army.

During the past decade increasing attention has been paid to the degenerative changes of middle and later life, with particular emphasis on arteriosclerotic heart disease and hypertension. The reasons for this are the apparent or real increase in the prevalence of these conditions and the fact that little is known of their cause, therapy, or prevention. Knowledge of this kind can be gained best through a continuous systematic observation of a group of average normal adults who, as they grow older, develop changes inherent in the process of aging. Such a study must, of necessity, cover a period of many years.

Since nearly all home office employees who have reached the age of 40 remain until retirement age (age 60 for women; age 65 for men), a group of about 3,000 average adults in middle and later life is available for such a long-term study. In 1929, plans were made to begin a series of annual observations on this group, to be carried on for an indefinite number of years. Accordingly, in 1930 a routine electrocardiogram was included in the annual examination of clerical employees 40 years of age and older. And on reaching the age of 40 all other employees are examined in the same way. In 1937 and 1938 routine roentgenograms of the heart were taken to obtain additional information regarding heart size, and these examinations are repeated at suitable intervals.

Through the use of these objective methods,

supplementing the physical examination, it is believed that progress has been made in establishing an early diagnosis We have seen some conditions which have a small beginning, scarcely deviating from normal unless viewed serially, and over the years show steady though slow progress Other changes fluctuate for a variable length of time before becoming established and another group shows massive changes as the first variation from normal frequently accompanied by slight or vague symptoms or none at all This is certainly not true in all cases but it is surprising to see how often it is true Having found such a case what is to be done about it? Certain practices have been adopted as an approach and others are planned Fourteen years of work have resulted in increased knowledge but large gains lie in the future

Statistical studies correlating the electrocardiographic physical and roentgenographic data have been and are being made The technic of carrying out a study of this character presents quite a puzzle Among other things it must be feasible and simple enough to warrant inclusion in a busy routine schedule Also it must be comprehensive without including unessential details We know that progress has been made but suggestions and opportunities to discuss these studies with other interested persons are welcomed It seems logical to expect that similar studies carried on in other places with different groups will lead to more rapid progress if the results are pooled

Undoubtedly the most profitable and gratifying results so far have come from our tuberculosis control program Prior to 1927 the detection and subsequent care of cases of pulmonary tuberculosis among home office employees represented a real problem At that time a rather high incidence of active disease about four cases per thousand, chiefly in the advanced stage was found among home office personnel each year After the installation of roentgenographic apparatus in 1926 and the more frequent use of this type of examination, the discovery of an occasional case of active tuberculosis soon after the usual pre-employment or annual physical examination made it obvious that it was not possible to depend upon even the most careful physical examination to detect early cases The use of x ray examination in chest diagnosis was not so common as it is today—as a matter of fact unless the clinical symptoms and physical findings agreed with the x ray the latter was apt to be discounted or ignored Since we knew what had to be done, we planned a method for routine case finding and hoped it would work We installed fluoroscopes in 1928 to supplement all physical examinations and used them routinely as a method of determining which patients should be x-rayed This greatly reduced the expense and increased the efficiency of handling the tuberculosis problem among home office employees The results have been striking, conclusive and continued—the incidence of new cases needing treatment has decreased by more than three quarters and for years the large majority of the cases has been discovered in the minimal stage Inasmuch as the incidence of tuberculosis among applicants for employment has shown no real or continued decrease since 1928 we feel that our present favorable position is a reflection of our program which is to make sure that no definite lesion is present at the time of employment and to take stock of the situation by an annual routine fluoroscopic examination of all employees We believe we were the first organization of any sort to adopt such a procedure and over the years it has paid large dividends both tangible and in satisfaction

The report of these three typical studies shows the opportunities open to industrial medicine and usually not found in the clinic hospital, or private practice of medicine which deal almost exclusively with 'sick people The chief value of carefully planned systematic observations carried out upon a group of working people of average health is in the early detection of unrecognized disease and also in the determination of criteria to define "average health' Certainly the results of the examinations of draftees, with the large rejection rate would indicate the necessity for a nationwide program to raise our present average well above its unsatisfactory level It is in the field of such activity that industrial medicine has its true scope and opportunity

Discussion

Dr L Holland Whitney*, *Nassau New York*—Dr Fellows has covered the activities and objectives of a well rounded medical program

It is interesting to note that the trend of medical activities is toward prevention and this is of course commendable I am particularly impressed by the very complete cardiac survey which has been in effect for some time It is quite apparent that Dr Fellows has been aware of the fact that here was an unusual opportunity to accumulate a vast store of information, which is unique Hardly any of the cases have cardiac complaints Broken down by age groups this will make interesting and valuable data

Venereal disease control and recognition is another important contribution I hope many other industrial groups will be able to take advantage of a similar opportunity Case finding and therapeutic

industrial vision studies. Our preliminary studies point up several things. First, that the expense of an industrial vision program can be met by the resultant decrease in the number of eye accidents. Second, we can improve placement technic and reduce cost by placing the worker in the job for which he is visually qualified, as well as physically qualified. Third, that an eye protection program, to be successful, cannot be divorced from an eye correction program. We are enthusiastic about the chances of making a real contribution to a subject about which little is known.

Dr. Fellows is to be congratulated on the excellent medical program which he has outlined. This comprehensive approach to the field of industrial medicine should serve as a stimulus to those of us who have been so fortunate as to be here.

* Medical and Employee Service Director, Sperry Gyroscope Company, Inc.

PRESIDENT AGAIN DEDICATES BIRTHDAY TO FIGHT AGAINST PARALYSIS

Dedicating his birthday for the twelfth consecutive year to the fight against infantile paralysis, President Roosevelt, in a letter released on December 8, declared that the fight against this vicious disease enemy "is a fight to the finish and the terms are unconditional surrender."

His letter, written to Basil O'Connor, president of The National Foundation for Infantile Paralysis, approved the latter's request for centering the 1945 Fund-Raising Appeal of the National Foundation around the celebration of Mr. Roosevelt's next birthday, January 30, 1945. The period for the Fund-Raising Appeal and the March of Dimes to the White House will be January 14-31, Mr. O'Connor announced.

Pointing out that the 1944 epidemic was the second largest in the history of the disease in the United States, Mr. O'Connor wrote the President that the voluntary contributions of the American people had made it possible for the National Foundation to put the largest polio-fighting army in history into the field to battle it.

"Due in large part to this fact, far more than half of those whom infantile paralysis struck down this year will again be going about their tasks with faith and hope and confidence, because their fellow Americans have made it possible," wrote Mr. O'Connor. "Further, while everyone afflicted by infantile paralysis is assured the best of medical care and treatment, at the same time there is going on a vast program of research to find a preventive and cure of this disease.

"Unremitting research will provide the key which will unlock the door to victory over infantile paralysis. The fashioning of this key takes time and money and the talents of a host of eminent scientists. That work is going on constantly—supported by National Foundation grants operative in more than fifty institutions throughout the country; that work is going on by virtue of the mandate of the American people who, aware of the threat of recurrent epidemics, are resolved that this disease must be conquered."

In reply, President Roosevelt wrote, "The work of The National Foundation for Infantile Paralysis and its chapters glows as one of the brightest pages in the history of how a nation of free people, working together, seeks to assure for its children the priceless gift of health.

"It is good to know that while the infantile paralysis casualties of 1944 and former years are receiving the aid they need, there is going on apace an ever-expanding program of research seeking the prevention and cure of the disease. I feel as you do that the value of this research cannot be overemphasized. Treatment, no matter how adequate, cannot win this war against a disease aggressor; but scientific research put in motion by the American people through their support of the National Foundation will unquestionably conquer this disease.

"We face formidable enemies at home and abroad," wrote the President. "Victory is achieved only at great cost—but victory is imperative on all fronts. Not until we have removed the shadow of the Crippler from the future of every child can we furl the flags of battle and still the trumpets of attack. The fight against infantile paralysis is a fight to the finish, and the terms are unconditional surrender."

AWARD OFFERED FOR PAPER ON GLAUCOMA

A prize of $500 for the most valuable original paper adding to existing knowledge about the diagnosis of early glaucoma or the medical treatment of noncongestive glaucoma is being offered by the National Society for the Prevention of Blindness, 1790 Broadway, New York 19, New York.

This award will take the place of two separate prizes of $250 each which were announced some time ago.

Papers may be presented by any practicing ophthalmologist of the Western Hemisphere and may be written in English, French, German, Italian, Spanish, or Portuguese. Those written in any of the last four languages should be accompanied by a summary in English.

The award will be made by the Society with the guidance of an ophthalmologic committee composed of Drs. John N. Evans, Frank C. Keil, Daniel B. Kirby, Arnold Knapp, John M. McLean, R. Townley Paton, Algernon B. Reese, Bernard Samuels, Kaufman Schlivek, Mark J. Schoenberg, Manuel Uribe Troncoso, and David H. Webster.

CHEMOTHERAPY, MICROBIOTIC SUBSTANCES, AND RADON—THEIR LOCAL USE AS THERAPEUTIC AGENTS IN OTOLARYNGOLOGY

S J Crowe, M D , and Arthur T Ward, Jr , M D , Baltimore, Maryland

THIS report is intended as a brief summary of studies of four local therapeutic agents which have proved themselves to be of great value in otolaryngology, they are the chemotherapeutic agent sulfadiazine, the bactericidal and bacteriostatic agents tyrothricin and penicillin, and the radioactive gas radon

Sulfadiazine solution[1] is 2 5 per cent sulfadiazine in ethanolamine The solution has a pH of 8 7, is nontoxic, and is readily absorbed by tissues Local use makes unnecessary the saturation of the entire body and thus prevents various toxic reactions associated with sulfonamides

This nonirritating solution is invaluable in treating infections of the pharynx, nasopharynx, and the ear, particularly when they are due to beta hemolytic streptococci In treating the common cold this solution has no effect on the virus but inhibits or kills the secondary bacterial invaders of the mucous membranes By frequent use of this local treatment one reduces the duration of coryza, lessens the disagreeable symptoms, and prevents complications such as otitis and sinusitis This is accomplished by *building* up a high local mucous membrane sulfadiazine level

Bactericidal agents derived from micro-organisms open up a new and important field of therapy for the otolaryngologist In 1939 René Dubos[2] found that a specific bactericidal agent could be obtained from the aerobic sporulating soil bacterium, Bacillus brevis From peptone cultures of this organism, a water-soluble and a water-insoluble fraction have been obtained The water-soluble fraction is not bactericidal, whereas the water-insoluble fraction is highly bactericidal This bactericidal crystalline material is called tyrothricin It has been further fractionated into gramicidin and tyrocidine, both of which appear to be polypeptides Gramicidin is bactericidal in general for gram-positive organisms, while tyrocidine is bactericidal for both gram-positive and gram-negative organisms The action of gramicidin is believed to be due to interference with one or more metabolic systems of the individual bacterium

Tyrothricin is extremely stable either as the crystalline powder or in alcoholic solution Clinically it is usually used as a 1 1,000 to 1 10,000 solution made from 2 per cent alcoholic solution, diluted with sterile distilled water This mixture is a suspension which in vitro studies show may kill all gram-positive organisms, but pneumococci and streptococci are more susceptible than staphylococci in dilutions of 1 1,000,000 It must be stressed that tyrothricin is very toxic intravenously and subcutaneously, but harmless when used locally as a contact agent, since it is not soluble in water and is not absorbed

The third bactericidal agent is penicillin Of the great varieties of this mold, Fleming's[3] strain most closely resembles Penicillium notatum It is from this strain that the crude penicillin used in our work was made Penicillium may be grown in rectangular flat-bottomed bottles on a liquid amino acid medium, at room temperatures In seven to twelve days it entirely covers the surface of the medium with a thick, wrinkled, gray-green growth The so-called harvesting of the material must be done at the proper pH moment, as its greatest activity is lost unless it is stopped at about pH 7 to 7 5 The underlying liquid is then passed through a Seitz filter The clear, amber-colored *filtrate contains* the crude bactericidal agent, penicillin Its strength is determined by titration against standard bacterial cultures This crude penicillin will only retain its potency if kept frozen Under these conditions potency will be maintained for about two months

Unlike tyrothricin, purified penicillin, which is water-soluble, may be given intramuscularly or intravenously as well as used locally Excretion is by way of the kidneys Penicillin is bactericidal, but mostly it acts as a bacteriostatic agent, its effectiveness being due to interference with multiplication of bacteria Penicillin differs from the sulfonamides in that its action is not nullified by pus, peptones, or para-aminobenzoic acid It is nontoxic

In general, like tyrothricin, penicillin is bacteriostatic for gram-
anaerobic streptococ

For over two years we have tested clinically tyrothricin and crude penicillin as local agents[4,5] in a large number of cases covering every phase of otolaryngology For a comprehensive and true estimation of values it was found necessary to make a thorough bacteriologic study of each individual case In each case complete studies of each organism and its reaction to tyrothricin and penicillin in various dilutions were ob-

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From Johns Hopkins Hospital Baltimore Maryland

served. A method of bacterial titration was used.

A summary of findings shows that these agents either inhibit or kill most strains of staphylococci, streptococci, and pneumococci. It must be stressed that there is not only bacterial group sensitivity, but also a bacterial strain sensitivity. In a group of 59 patients with hemolytic Staphylococcus aureus infections, titration showed that 9 were insensitive to tyrothricin and 12 to crude penicillin. Irrigation of the sinuses with the therapeutic agent which most effectively inhibits or kills the infecting bacteria will give better results in acute maxillary sinusitis than in chronic maxillary sinusitis due to the same organism. The explanation for this is that the bacteria in the acute phase are on the surface of the mucous membrane, and in the chronic stage they are deep within the glands and submucosal tissue. Therefore in chronic infections it is necessary to use these microbiotic agents along with the usual surgical procedures.

By irrigating an antrum, for example, during the operation, and soaking the packing with the bactericidal agent of choice, the postoperative result is a sterile or bacteria-inhibited field.

Tyrothricin is not absorbed and is effective only when it comes in direct contact with bacteria. Penicillin is absorbed to a greater extent, but to be most effective should be in direct contact with the infecting bacteria for several hours.

Bacterial growth curves, using various concentrations of the bactericidal agents, when plotted against time, show that tyrothricin acts almost immediately, whereas crude penicillin reacts after an interval of several hours.

By knowing what organisms one is dealing with, by knowledge of these new therapeutic agents, by titration tests to determine the agent of choice, we believe one can more intelligently evaluate results and effectively treat otolaryngologic infections. Through the proper use of these local agents along with operative procedure, it is believed that the postoperative edema, pain, purulent discharge, and consequent formation of infected granulation tissue are greatly reduced or completely abolished. Likewise, postoperative care and hospitalization time are reduced.

The fourth therapeutic agent, radon, has been used in the Johns Hopkins Hospital for sixteen years in the treatment of certain conditions that cause deafness. The technic and specifications of the radon nasopharyngeal applicator are as follows: The radioactive element is a glass capillary tube $1^1/_2$ cm. long which fits into a brass screw tube 2 cm. long and with a lumen of 1.5 mm. The thickness of the tube wall is 1 mm. of brass. This unit screws into the handle, which is 13 cm. long. The glass capillary contains sufficient radon gas to produce about 1,000 millecuries. Four grams of radium in solution produces about one liter of nitrogen, helium, hydrogen, oxygen, and radon daily. By sparking off the hydrogen and oxygen and by freezing the remaining gas with liquid air and through a complicated process utilizing differences in melting point, pure radon is obtained. By use of the gold leaf electroscope and comparison of the radon capillary to a standard of 50 mg. of radium whose strength is known, one can obtain from calculated tables the millecuries produced at any hour of any day. Multiplication of this number by a factor which gives 2.0 Gm. minutes gives one the standard dose and time, which sixteen years of work has proved to be safe and effective. Radon applications are given once monthly up to four doses. However, before each treatment the nasopharynx is carefully examined with the nasopharyngoscope to determine whether treatment is necessary. Since brass filters out most of the Beta rays, this applicator allows irradiation mainly with the mild Gamma rays.

Since radon is not available everywhere, experiments are at present under way in which applicators containing 50 mg. of radium sulfate are used. Since the millecurie output of this amount of radium, using a 1 mm. brass filter, would require a long time for each application, a different filter must be used. The filter of choice would be Monel metal 0.3 mm. in thickness. This applicator would require one month after the radium has been placed in it to reach equilibrium. Before use its output should be calculated at the Bureau of Standards. A dosage equivalent to that obtained by the radon applicator described above would be the same for each application—about $6^1/_4$ minutes; Beta ray output would be higher in this applicator than in the brass radon applicator first described.

The principles of the recognition, treatment, and prevention of hearing impairment center about the following concepts:

1. Impaired hearing for high tones, with good hearing for low tones, is the earliest symtom of middle-ear as well as of inner-ear deafness.

2. Recurrence of adenoids after operation on children is so common that it must be regarded as normal. This recurrent lymphoid tissue may impair the function of the eustachian tubes and cause a low grade chronic tubotympanic catarrh which may lead to progressive deafness.

3. Recurrent or hyperplastic nodules of adenoid tissues in and around the pharyngeal orifice of the eustachian tubes are so located that they cannot be removed surgically.

4. Every type of deafness seen in adults is also found in children. In most types the earliest symptom is a loss of hearing for high tones, and for their recognition the tones above 8,000 *double vibrations must be tested.*

5. In order to have good hearing the eustachian tubes must function normally. Impaired function of the eustachian tubes in children is caused by regrowth of the lymphoid tissue in the nasopharynx. In order to discover this condition the nasopharynx must be examined with the nasopharyngoscope.

6. Early recognition of impaired hearing for high tones, long before the hearing of speech is affected, and irradiation of the nasopharynx to restore the patency of the eustachian tubes, is the only method for prevention of progressive deafness of this type. The only hope is early recognition and treatment, before irreparable damage to the mucous membrane of the middle ear and ossicular chain has occured.

7. Lymphoid tissue is so sensitive to radiation that the dose employed in the treatment of the nasopharynx is far below the amount that could cause any irritation or injury to the mucous membranes or surrounding structures.

Aside from the preventive treatment of deafness, the applications of radon therapy have been so broadened and extended that today it is one of the most useful therapeutic agents in the field of otolaryngology.

Radon is applicable to patients of all ages. Especially in infants and young children, recurrent otitis media, caused by chronic infection of the nasopharynx associated with lymphoid hyperplasia, usually can be cured promptly if radon is applied to the nasopharynx and sulfathiazole powder is insufflated locally into the canal, after carefully removing all discharge. Nasopharyngitis and the associated chronic cough are also benefited by this procedure. Radon is a most useful agent in cases of nasal obstruction due to hypertrophied adenoids in infants. The frequency and severity of acute coryza are reduced when lymphoid tissue has been thoroughly removed, by either surgical operation or irradiation.

Radon is also of value to patients who are either too ill or too poor a surgical risk for operative procedure, and for those in whom the adenoids have recurred following surgical removal. This is common in children. Radon used for patients in the outpatient department and in private offices often make hospitalization, anesthesia, and surgical operations unnecessary. This is particularly valuable in this period when almost all hospitals are overcrowded.

With a word of caution, we offer an observation as yet unproved. About nine months ago it was observed that among the hundreds of children being treated for the prevention of deafness there were a number with asthma. Many were allergic to the usual inhalants, but had failed to respond to desensitization, removal of the allergic agent, or change in diet. These patients had hypertrophied adenoids, and a history of frequent colds associated with asthmatic attacks. Many required adrenalin injections to relieve the acute attacks. Typical asthmatic attacks occurred at intervals, varying from two or three days to a month. Some had a seasonal relationship. Following radon treatments the severity and frequency of the attacks became less and in some patients the asthma disappeared altogether. One patient with a history of weekly attacks has had no asthma during six months of observation.

We have under way a research program for adult and child asthmatics, in which each case is carefully studied from the pediatric, the otolaryngologic, and the allergic medical standpoint. Only a long-range program will determine the validity of the above observations. Even if only certain types of asthmatic patients are benefited, the radon treatment will be worthwhile.

Theoretically, the effect of radon applied to the nasopharynx in these cases might be caused by reduction of secretions, changes in the absorption of allergic substances by nasal and nasopharyngeal tissue, or removal of the nasopharyngeal "culture tube" where sensitizing bacteria may thrive.

Summary

A 2.5 per cent sulfadiazine solution spray is nontoxic, is rapidly absorbed by mucous membranes, and when used frequently and in sufficient amounts will inhibit the growth of pyogenic organisms, particularly of beta hemolytic streptococcus, in the upper air passages. It is valuable in the treatment of infections of the pharynx and nasopharynx and for the control of the associated cough. If treatment of acute coryza is started early there is a reduction in the duration of the disagreeable symptoms and an almost complete absence of complications.

Tyrothricin, water-insoluble, is isolated from cultures of the aerobic sporulating B. brevis and has been further fractionated into gramicidin and tyrocidine. When used locally in suspension it inhibits the growth of certain organisms, in general the gram-positive group. It is extremely toxic intravenously. It is most valuable in the treatment of acute infections, and as a supplement to surgery in the treatment of chronic infections.

Penicillin is not toxic, either locally, intravenously, or orally. It is water soluble and is

isolated from the mold P. notatum. It interferes with multiplication of bacteria, and is slower acting than tyrothricin. In general it inhibits the gram-positive group of bacteria, but as isolation of the active principle continues, there are indications that it may be effective against a much broader group of bacteria.

Organisms may become resistant or fast to both penicillin and tyrothricin. Some strains of a bacterial group (especially of staphylococci) may be entirely unaffected by either agent, or may vary enormously in their sensitivity. Anaerobic streptococci, and the Lancefield B group, so often found in otolaryngologic conditions, are not affected by sulfonamides, but are sensitive to both tyrothricin and penicillin. For a better evaluation and interpretation of clinical results we must make bacteriologic studies on each patient.

Radon or radium salts, applied through a small applicator to the nasopharynx, have proved themselves invaluable in the prevention and treatment of certain forms of deafness associated with obstruction of the eustachian orifices. If they are carefully used there are no burns, crust formations, or disagreeable symptoms following treatment. This is based on observations at the Johns Hopkins Hospital on their use in children and other patients for the past sixteen years. In many cases, end results are more satisfactory than those following surgical removal of the adenoids, since lymphoid tissue is an integral part of the mucous membranes of the nasopharynx and is so diffuse that it cannot all be removed at operation. Recurrence after operative removal is so commonly found that it must be regarded as normal.

Aside from its use in the treatment or prevention of deafness, irradiation has wide uses in many other conditions of the nasopharynx. Observations on its use in patients with asthmatic bronchitis are mentioned.

In conclusion, the object of this report is to arouse interest in these four local therapeutic agents, so that their larger use may prove and extend their true values.

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5. Crowe, S. J., and Ward, Arthur T.: North Carolina M. J. 4: No. 10 (Oct.) 1943.

CLINICAL DEMONSTRATION IN VENEREAL DISEASE

Opportunities to observe demonstrations of venereal disease patients and to participate in discussions of diagnosis and treatment will be afforded New York City physicians at the Rapid Treatment Center at Bellevue Hospital. Starting Saturday, January 6, at 10:00 A.M., and on the succeeding three Saturday mornings, practicing physicians will be shown how the Center treats its cases of venereal disease by the latest methods.

The demonstrations will be under the direction of Dr. Evan Thomas, Dr. Ruth Thomas, Dr. Gertrude Wexler, and other staff members. Interested physicians should report to the office of Dr. Ruth Thomas at the opening of each session. Her office is in the Rapid Treatment Center in the R & S Building of Bellevue Hospital at First Avenue and 28th Street. Entrance is through the main gate between East 27th and East 28th Streets and then to the left.

SCIENTIFIC EXHIBITS

1945

ANNUAL MEETING

Applications for space for the scientific exhibits should be made directly to

Dr. J. G. Fred Hiss,
505 State Tower Building,
Syracuse 2, New York,

Chairman of Subcommittee on Scientific Exhibits of the Convention Committee.

Exhibits dealing with Industrial Health are especially desired.
The Annual Meeting will be held April 30–May 3, 1945, Hotel Statler, Buffalo.
The list will be closed on January 20, 1945.

PETER IRVING, M.D., *Secretary*

Therapeutics

CONFERENCES ON THERAPY

THESE are stenographic reports, slightly edited, of conferences by the members of the Departments of Pharmacology and of Medicine of Cornell University Medical College and the New York Hospital, with collaboration of other departments and institutions. The questions and discussions involve participation by members of the staff of the college and hospital, students, and visitors. The next report will appear in the February 1 issue and will concern "The Rh Factor in Therapy."

Uses and Abuses of Quinidine

DR. CARY EGGLESTON: This is a series of exercises you are all familiar with, but it always reminds me to a certain extent of "Information, Please" in that recently it has become utterly unrehearsed and all you have is an interlocutor and several victims who have been more or less preselected so that we would be sure they would be here.

Today we are going to talk about a drug which, unfortunately, is rapidly disappearing from our armamentarium, largely on account of the war—namely, quinidine. Like quinine, it is becoming more and more difficult to obtain; that is, in any adequate supply. I have just today had a conference with a pharmacist who is appealing to the O.P.A. for the release to him of an additional supply of quinidine for his clients. It is true that a good many patients who require quinidine can get along, perhaps, without it without too great suffering, but many patients who really require quinidine find it extremely difficult to get along without it. So far as I am aware we have no satisfactory substitute for quinidine, so today we are going to discuss quinidine with the full recognition that it is difficult to come by. We hope that that situation will be corrected.

Quinidine was introduced in about 1914 as a result of observations made by the late Dr. Wenckebach on a patient of his who traveled a great deal to Java. This patient had auricular fibrillation and he turned to Dr. Wenckebach one day and said, "Doctor, I know how to stop this." Dr. Wenckebach was taken aback, and said, "Tell me how? I have never known of it." The patient said: "I noticed that when I go to Java and take my regular daily dose of quinine to protect me against malaria I am always free from these attacks of fibrillation." Shortly thereafter Dr. Wenckebach was transferrred from his professorship in Leyden, Holland, to Vienna, and there he invoked the assistance and aroused the interest of a young man named Frey, who undertook to study, at Dr. Wenckebach's suggestion, the various cinchona alkaloids to determine which of those, if there were any difference between them, was the more effective, and it was Frey who first drew attention to the fact that quinidine is more effective than any of the other cinchona alkaloids.

Dr. Gold, I would like to ask you very briefly to review the essential pharmacologic actions of quinidine upon the heart and its mechanism.

DR. HARRY GOLD: Quinidine has several actions upon the heart. The most important one from the standpoint of its therapeutic use is the depression of the rhythmicity of the heart muscle. It prolongs auricular, ventricular, and auriculoventricular conduction. Its further action in raising the refractory time of auricular muscle appears to be responsible for bringing a circus movement to an end.

There are, in addition, central actions of quinidine which are important in connection with its toxic effects (cinchonism).

DR. EGGLESTON: Dr. Deitrick, what do you consider to be the clinical indications for the use of quinidine?

DR. JOHN B. DEITRICK: Of foremost importance is its use in ventricular tachycardia which sometimes arises in the course of coronary occlusion; but it is useful for ventricular tachycardia from any cause. It has value in auricular fibrillation due to Graves' disease, in patients in whom normal rhythm was not established by thyroidectomy and/or adequate quantities of iodine.

It should be used to establish normal rhythm in paroxysmal tachycardia and fibrillation from whatever cause. I believe that would about cover it.

DR. EGGLESTON: Would you use it for the control of multiple premature beats?

DR. DEITRICK: In my experience it usually takes so much quinidine to eliminate premature beats—say, 0.2 Gm. three times a day—that most patients find it more troublesome to take the drug than to get used to the premature contractions.

DR. EGGLESTON: That is to say, you think the premature beats are of less importance to them than the maintenance of a regimen?

DR. DEITRICK: That is right.

DR. GOLD: Did Dr. Deitrick mean to omit auricular flutter?

DR. DEITRICK: I did not mention it because I personally would not prefer to use quinidine for auricular flutter.

DR. EGGLESTON: Dr. Gold, do you agree or disagree with Dr. Deitrick's answer or any part of it?

DR. GOLD: I think on the whole I would agree. I think quinidine has value in auricular flutter also. Perhaps one might add that quinidine is applicable only to certain disorders of heart rhythm and is of no value except occasionally in an indirect way, in relation to the problems of failure.

DR. EGGLESTON: There is one problem which has frequently been brought to the fore in the use of quinidine—namely, its use along with digitalis in the patient who has a disorder of cardiac rhythm and who has had congestive failure, and has been receiving digitalis for the latter. There are those who believe that the combination is contraindicated or at least hazardous. Others use the combination quite freely and without alarm. What is your feeling, Dr. Gold?

DR. GOLD: I think it is a good plan to avoid the use of quinidine in the patient who has had large doses of digitalis. Experimental evidence obtained in our laboratory shows that the heart under the influence of a great deal of digitalis becomes especially susceptible to certain toxic actions of quinidine. In the dog, after toxic doses of digitalis, a relatively small dose of quinidine sometimes produced complete cardiac standstill or ventricular tachycardia. The dose was sometimes surprisingly small, equal to about 3 grains of quinidine intravenously for a man in the case of auricular arrest. The cases of poisoning by quinidine reported in the literature are for the most part found in patients who have been under the influence of digitalis, and the question that has always been in our minds is whether the digitalis did not in many of those contribute to the toxic effects which had been attributed to quinidine alone.

DR. EGGLESTON: Dr. Pardee, you undoubtedly have had a good deal of experience on this point with your patients. What is your reaction?

DR. PARDEE: My reaction to the giving of digitalis and quinidine together is that I see no pharmacologic reason for it, and no therapeutic benefit to be obtained. I should think that the patient either needs to have the abnormal rhythm interrupted by quinidine or to have the heart failure treated by digitalis. The first thing to treat is the failure. When the failure has subsided and the patient is in good enough condition so that you don't fear there might be thrombi in the auricles, you might attempt to restore normal rhythm. Then you would use quinidine. To use the two together for any length of time makes no sense to me.

DR. EGGLESTON: Theoretically, of course, there is objection to their use simultaneously in that the actions of digitalis, in so far as they influence auricular fibrillation, should theoretically tend to perpetuate fibrillation, while the actions of quinidine are in the direction of terminating fibrillation.

DR. DEITRICK: It has been our custom here, as I recall it, when we wished to abolish auricular fibrillation, to digitalize the patients first and then give them quinidine.

DR. EGGLESTON: Did you stop the digitalis before you gave the quinidine?

DR. DEITRICK: Yes. First we gave digitalis. We then stopped it for not more than twenty-four hours, and then gave quinidine. The theory was that the digitalis might prevent the increase in ventricular rate which sometimes occurs in the course of the use of quinidine. Is that correct, Dr. Stewart?

DR. HAROLD STEWART: We usually do not give the two drugs at the same time. We stop the digitalis and start the quinidine the next day.

DR. EGGLESTON: Of course, that is tantamount to giving the two at the same time, because the digitalis action is so prolonged.

DR. STEWART: In actual experience we had no difficulty with that.

The idea that digitalis fixes auricular fibrillation seems to be fiction. We see patients with auricular fibrillation revert to normal rhythm while taking the digitalis. Patients with hyperthyroidism after operation revert to normal rhythm even though they may be taking digitalis. I think that on occasions digitalis prevents recurrent transient auricular fibrillation.

DR. EGGLESTON: I did not mean to imply that digitalis actually promoted or tended to fix fibrillation, but, based upon demonstrable actions, the effect should be in that direction. Clinically, in actual usage, I would quite agree with you that digitalis has no influence which we can detect upon the prolongation of paroxysmal fibrillation and often prevents its occurrence, and, moreover, frequently patients will revert spontaneously to a sinus rhythm from auricular fibrillation, although they may at that time be well under the effects of digitalis.

DR. STEWART: I might ask Dr. Gold about the dosage. He spoke of small amounts of quinidine in the animal experiments, but of large amounts of digitalis. Were those toxic amounts

of digitalis, or would they correspond to clinical doses?

DR GOLD The doses of digitalis were very large—about 50 per cent of a fatal dose for a dog Under these conditions a dose of quinidine which in the normal dog exerts no striking effect sometimes precipitates ventricular tachycardia, or auricular or ventricular standstill One can't assume that such a combined action will occur in humans in the range of usual therapeutic doses, but the possibility isn't to be ignored There are cases in which quinidine precipitated a ventricular standstill in humans, also ventricular tachycardia Those were often in digitalized patients They resembled very closely the effects observed on dogs

DR PARDEE Dr Gold, isn't it true, or hasn't it been observed, that the doses of quinidine which are likely to produce ventricular standstill or ventricular fibrillation are the smaller doses, and that larger doses do not tend to do that so much?

DR GOLD I don't know Here is one type of experience A man, 54 years old, developed coronary thrombosis Signs of congestive heart failure followed in a few days He was therefore digitalized After a maintenance dose for several days, an electrocardiogram showed a long P-R interval which was interpreted as a digitalis effect

From the very beginning, before digitalis was started, there were ventricular premature beats of multiple foci, sometimes two or three in a row They didn't seem to be influenced by digitalis and there were no gastrointestinal symptoms of digitalis toxicity While the digitalis was continued, the patient was given 5 grains of quinidine sulfate three times a day I would not know whether you consider that a large or a small dose, but it was continued for three days and on the third day the patient developed an attack of syncope, with cold clammy sweat The nurse thought he was dying, but he came out of that attack spontaneously No one knew just what had happened The two drugs were continued and two days later there occurred a similar attack This time the house officer happened to be there There was no heartbeat during the onset of syncope This was followed by tachycardia, during which the syncope began to disappear The patient could recall no details of the event The quinidine was discontinued and during the next four weeks of observation with digitalis alone there were no further attacks

Analogous experiences have been recorded in the literature

DR EGGLESTON Dr Gold isn't it true that it is a bit difficult to interpret the causes under circumstances such as those? I take it this was an acute infarction?

DR GOLD About a week after the onset

DR EGGLESTON We know that unexpected and unpredictable disturbances in cardiac mechanism may occur at any time within the first two or three weeks following acute infarction There are instances, however, of sudden death following the use of quinidine which are very well authenticated and for which no cause has been found postmortem I recall very dramatically one of the earliest experiences we had with quinidine at Bellevue Hospital It was not on my service, but Dr. John Wyckoff selected from the Outpatient Department a young man, seemingly entirely healthy——

DR GOLD I remember him

DR EGGLESTON He seemed entirely healthy except that he did show auricular fibrillation Dr Wyckoff took the boy into the hospital and studied him in all ways, prior to administering quinidine He gave him quinidine and the boy ceased to breathe, his heart having stopped very promptly after either the first or the second dose of quinidine At that time the doses were not in excess of 0 3 Gm , or 5 grains An autopsy showed no cause for the boy's death There are other similar authenticated cases I don't recall whether in that patient digitalis had been administered before My assumption is that it had not been, since the boy showed no signs of congestive heart failure

DR GOLD I'm certain that the proper combination for the synergistic toxicity of digitalis and quinidine is not frequently encountered, but since animal experiments show the possibility, and human cases sometimes reproduce the design, measures should be taken to guard against it

DR EGGLESTON We ought not to harp too much upon the dangers of quinidine, because quinidine has a definite place in the therapeutic armamentarium of the modern physician It is a drug that is used widely and with a great deal of safety, and, if intelligently used, with a good deal of success

DR PARDEE I should like to ask one more question before we leave this matter Do you think, Dr Gold, in view of the danger of the combination of these two drugs, which we all admit, that it would be advisable to leave the patient off of digitalis long enough to have the digitalis almost entirely eliminated from his system before giving the quinidine to restore normal rhythm in the presence of auricular fibrillation?

DR GOLD The major part of the digitalis should be eliminated before the quinidine is started

DR PARDEE Is that your practice?

DR. GOLD: It is when there isn't an urgent situation of greater hazard, making it unwise to wait. A good example is a patient with coronary thrombosis who on the third day suddenly develops a rapid heart action of 220 a minute and the doctor gives him digitalis before he finds out it is ventricular tachycardia. The patient is in shock. Quinidine is the only drug which will slow this rhythm. There is no choice but to give it at once even though he has had a great deal of digitalis. One shouldn't try to abolish the ventricular tachycardia in these cases, but only to slow it markedly. If you try to abolish the ventricular tachycardia, you may cause cardiac standstill in such cases because, owing to auriculoventricular block, their ventricle cannot respond to the auricular impulse.

DR. EGGLESTON: There are a number of practicing cardiologists and research cardiologists right here in the room. We have heard from Dr. Pardee and Dr. Gold.

Dr. Werner, what has been your experience, and what is your practice with reference to the use of quinidine?

DR. E. A. WERNER: I had worked at the clinic of Wenckebach. Several fatalities from the intravenous injection of quinidine occurred there. The autopsy reports did not reveal very much. As to my practice, I am very cautious in using quinidine, particularly in patients who come to the clinic and who are not subject to control. In the material we have here, which is quite extensive, there are comparatively few indications for the giving of quinidine.

DR. EGGLESTON: I should take up the indications more specifically in a few minutes. Have you ever seen a fatality which you could attribute to quinidine?

DR. STEWART: No.

DR. PARDEE: I have seen only one and that was in the first private patient I ever gave it to. She was a young girl who had, I believe now as I did at the time, an active endocarditis as well as a certain amount of heart failure. I now would never give it to such a patient. She had an embolus shortly after she resumed normal rhythm.

DR. JOHN B. DEITRICK: Has anybody ever seen acceleration of the ventricular rate in patients with auricular fibrillation as the result of quinidine, in consequence of which they develop failure?

DR. EGGLESTON: That was pointed out by Sir Thomas Lewis in his early study on quinidine.

DR. PARDEE: I have seen patients forced into failure by the continued administration of quinidine. They were given it for a number of days—ten days, perhaps two weeks—much longer than it should have been given.

DR. GOLD: If one gives the average patient with auricular fibrillation a dose of quinidine intravenously, the first thing that may happen may be that the ventricular rate will go up considerably. That is because of the fact that quinidine blocks the vagus and accelerates the rate in much the same way that atropine does. That isn't often seen after oral administration.

In the treatment of a patient with auricular flutter, the auricles often beat at about 350 and the ventricle at 175, there being a 2:1 auriculoventricular block. Sometimes, as the auricles are slowed down by quinidine, let us say to about 250 a minute, auriculoventricular conduction improves and 1:1 rhythm develops. In consequence of this the ventricular rate, which was about 175, rises to 250 a minute. This sometimes produces symptoms.

STUDENT: What nervous mechanism is released to make the rate go up?

DR. GOLD: It isn't the release of a nervous mechanism. It is merely a matter of the capacity of the auriculoventricular node to conduct at different rates of excitation. At a rate of 350 it is refractory and conducts only half of the impulses; at a rate of 250 it may not be refractory and may conduct them all. If the beats are too close together every other beat falls in the refractory period and only half of them get through.

DR. EGGLESTON: These same points were brought out in some of the earlier studies on quinidine. I remember very distinctly that in the publications of Sir Thomas Lewis which appeared in the *Lancet* he emphasized particularly the need for following the apex rate of the heart during the administration of quinidine and for avoiding the continued administration of quinidine if the apex rate rose above 200, if I recall the figures correctly.

Dr. Deitrick, do you use quinidine in fixed fibrillation?

DR. DEITRICK: No, I would not give it at all.

DR. EGGLESTON: Why not?

DR. DEITRICK: Because the return of the normal rhythm is only transient. It seems to me wiser to allow the body to make adjustments to one or the other, rather than to shift from fibrillation to normal rhythm and back again.

DR. EGGLESTON: At the time quinidine was introduced in medicine, Dr. Stewart was on the staff of our sister institution, and Dr. Alfred Cohn was much interested in quinidine. They gave it to a good many patients with auricular fibrillation. Dr. Stewart, did you use it in the patients with fixed fibrillation in contradistinction to the paroxysmal or transient type of fibrillation?

DR. STEWART: Not very often. We take

several factors into consideration (1) whether the patient is disturbed by the irregularity, (2) the size of the heart In those with a very large heart, one is more likely to encounter thrombi and accidents with the return of the normal rhythm and the regular forceful contraction of the auricles There is also the matter of failure If the patient had heart failure in the past or has prolonged heart failure I would think twice not to use it The decision to use it is based chiefly on these facts there never has been any heart failure, the heart is not unduly large, the patient is greatly disturbed by the irregularity In most patients, you can control the rate so much better when they have auricular fibrillation than when they have normal rhythm, particularly those with heart failure

Dr Eggleston Dr Pardee, you spoke in passing about a patient of yours who died, the first patient upon whom you tried quinidine I gathered from what you said that that patient died as a result of embolus

Dr Pardee Yes

Dr Eggleston A good deal has been written in the literature about the dangers of embolism when the auricular fibrillation is checked and synchronous contractions of the auricles take place What has been your experience about this and what is your feeling?

Dr Pardee I think it is a very real danger I have seen the same thing happen when auricular fibrillation spontaneously reverted to normal without the use of quinidine, and also when it reverted during the course of digitalis I think it is very important to attempt to decide whether or not there might be such auricular thrombi before you give quinidine to a patient You do it somewhat along the lines that Dr Stewart had suggested The size of the heart is important, particularly the size of the auricles, also the degree of cardiac insufficiency If failure is marked you would expect to have thrombi, particularly if it has recently been severe

Dr Eggleston You wouldn't use it in congestive heart failure?

Dr Pardee No If a patient with fibrillation has congestive failure I would not consider using quinidine to secure a normal rhythm I think it should only be done in a patient whose failure has cleared up, and whose functional capacity has reached a high rating

Dr Eggleston It would seem, then, that the consensus here with reference to the use of quinidine in the patients with the so-called fixed type of fibrillation is that for the most part quinidine is unnecessary, that there are certain very real hazards connected with its use, particularly the hazard of dislodging the embolus from the intra-auricular thrombi, and that there is likelihood of only temporary benefit

Dr Pardee But I think it would be a shame to leave the impression that it is not a very useful procedure in many patients with fibrillation to cause reversion to normal rhythm

Dr Eggleston Are you speaking of the fixed fibrillator?

Dr Pardee I am speaking of the fixed fibrillator who does not have severe heart failure even though he may have had auricular fibrillation for a long period of time I have seen a number of these patients who persisted with normal rhythm long enough before they again reverted to make it well worth while—that is, a year, two years, or more

So I feel somewhat more optimistic than your summarizing statements indicated

Dr Eggleston I am very glad you spoke up Maybe I had better appeal to Dr Stewart for his opinion

Dr Stewart I agree with Dr Pardee's statement

Dr Eggleston Dr Gold, I think you ought to come into this discussion

Dr Gold Do I understand that in a patient with auricular fibrillation who has no heart failure, but who has been fibrillating for, let us say, a year, you would not hesitate to use quinidine to restore a normal rhythm in the hope that as a result the patient might feel better? You would do that in the face of the danger of occasional emboli resulting from the restoration of a normal rhythm?

Dr Pardee Certainly If the patient came under my care for the first time and I knew that the fibrillation had been present for a year or two, and if he had not had serious failure, I would think it was worth while to try quinidine to see whether or not normal rhythm could be resumed

Dr Gold If you give enough quinidine you will restore normal rhythm in about 95 per cent, so that your result is pretty secure

Dr Pardee About two thirds of those patients in my experience hold their normal rhythm for a long enough time to make it worth while

Dr Gold As I see it, you agree that there is a risk of embolus, but you believe it isn't great, and the benefits of restoring normal rhythm in these cases justify taking the risk

Dr Stewart I think it might be well to call attention to a recent paper in the *Journal of the American Medical Association* describing a patient who had repeated showers of emboli These kept up for months Realizing that something sinister might happen, it was nevertheless decided to give the patient quinidine Normal

rhythm was restored and the patient had no more emboli.

DR. PARDEE: I had just such a case, in which quinidine was given for that reason. This woman had been having emboli for periods of months and it seemed worth while to attempt to restore normal rhythm to overcome blood stagnation in the auricular appendages. This was successful and she did not have any more emboli until two or three years later, when she again had auricular fibrillation.

I have never been quite satisfied that the change from auricular fibrillation to sinus rhythm was a major cause for the dislodgment of thrombi.

DR. GOLD: I had an experience which was the opposite of Dr. Pardee's. This was a young woman with rheumatic heart disease with mitral stenosis and very slight cardiac enlargement. She had been fibrillating for only a few weeks and the irregular pounding of the heart was annoying to her. After a dose of 15 grains of quinidine per day for three days the rhythm returned to normal. She had enjoyed the normal rhythm only four hours when an embolus passed to the brain. Within the next two days there were three more and, on the fourth day after the treatment was started, she was dead. Mind you, she wasn't getting on very badly with the fibrillation. It was at most only a source of annoyance.

DR. MCKEEN CATTELL: Dr. Eggleston, Dr. Randall is here. He is professor of therapeutics at the University of Texas. Could he be asked to comment on that?

DR. EGGLESTON: Conditions may be very different in Texas. Let us hear what the reactions are.

DR. EDWARD RANDALL: I should like to ask Dr. Pardee how much importance he attaches to the auricular fibrillation in a person who gets along reasonably well, having compensated for his fibrillation?

DR. PARDEE: A patient may lead a very satisfactory and relatively symptom-free life with properly treated auricular fibrillation. I agree to that. When a person has been doing that for many years, or for at least two years, since Dr. Eggleston suggested that period, it would seem to be perhaps not worth while to put him through a course of quinidine just to enable him to stop taking digitalis, because that is all you would be accomplishing.

DR. RANDALL: In other words, let well enough alone.

DR. PARDEE: However, in the type of case I have already discussed, quinidine should be used, and my experience with it has been good enough. In all of my private and hospital experience I have seen but one fatality. So I think it occurs rarely.

DR. DEITRICK: It is my impression that, if one weighs the criteria for selection carefully, suitable candidates for quinidine are rare even with those who have a large experience.

DR. EGGLESTON: There is a group of auricular fibrillators of the paroxysmal type that are troubled often during their paroxysms of fibrillation by considerable discomfort, who occasionally manifest symptoms of congestive heart failure during the attack of fibrillation. In that group the paroxysms ordinarily are relatively short in duration, varying from a few beats to a maximum of several days. I wish we had the time to discuss these, but we should pass on to matters of dosage.

Dr. Stewart, what is your plan of dosage of quinidine, if you have one?

DR. GOLD: Do you mean for the purpose of abolishing the attack of auricular fibrillation, or to prevent a recurrence?

DR. EGGLESTON: To abolish the attack of auricular fibrillation and maintain sinus rhythm, if you use it that way.

DR. STEWART: For auricular fibrillation, we first give the patient 0.2 Gm. by mouth and maybe two hours later repeat the dose, to see whether there is any idiosyncrasy. If there has been no indication of idiosyncrasy, I think one might then give the therapeutic amounts.

DR. EGGLESTON: What are they, please?

DR. STEWART: A dose of 0.4 Gm. at four-hour intervals.

DR. EGGLESTON: Continually day and night, or day only?

DR. STEWART: First I would give about four doses the first day.

DR. EGGLESTON: None at night?

DR. STEWART: No, I would stop during the night. I would give five doses the second day, and perhaps six the third day.

DR. EGGLESTON: When you get up to five or six doses do you give one or two during the night in your practice?

DR. STEWART: Yes.

DR. EGGLESTON: I raise the question as to whether you should give any of the doses at night, because of the fairly rapid elimination of quinidine and the fact that the action of quinidine appears to depend to a certain extent upon the concentration in which it is present in the blood stream.

DR. STEWART: That is why I start over every day.

DR. EGGLESTON: Dr. Pardee, what is your practice?

DR. PARDEE: I have usually given an initial dose of 0.2 Gm. as a test dose, but only one such

dose; following that I have given 0.4 Gm. at four-hour intervals for the first day, with one dose at night.

DR. EGGLESTON: You introduce a night dose even on the four-hour interval schedule?

DR. PARDEE: The next day the same schedule is followed. If that is not successful, I shorten the interval between doses to three hours, with two doses at night.

DR. EGGLESTON: What is your practice, Doctor?

DR. RANDALL: I do not give more than 1 to 1.5 Gm. in twenty-four hours.

DR. EGGLESTON: Irrespective of the patient's failure to respond?

DR. RANDALL: Yes.

DR. EGGLESTON: Dr. Gold, I think you have some very definite ideas on the subject of dosage of quinidine.

DR. GOLD: We should distinguish between abolishing an attack of auricular fibrillation and preventing a recurrence. The problems are different. Let us speak of dosage for abolishing the attack. The size of the single dose and the interval between doses depend in part on how ill the patient is. If one judges that the attack is causing serious trouble the dose should be larger and the interval shorter in order to terminate the attack as quickly as possible. In most cases I don't awaken patients for night doses. My usual plan is to give 0.3 Gm., or 5 grains, every two hours until the fibrillation ceases, or throughout the day. If the fibrillation does not come to an end that day, the dose is doubled the next day, and pursued in the same manner. It is rare that such doses fail, and they are without danger because the plan is interrupted when fibrillation ceases or minor toxic effects appear, such as buzzing in the ears or clouding of vision.

DR. PARDEE: Or diarrhea.

DR. DEITRICK: May I ask how many patients Dr. Gold has seen who require 2 Gm. or 3 Gm. a day in order to get the effect?

DR. EGGLESTON: I don't know how many he has seen, but I have seen several.

DR. GOLD: I would say that in many of them, fibrillation goes after a gram or two is given in this way. I should add that I don't often use it for long-standing fibrillators, but only in those of recent origin. I should also add that for preventing attacks we often need larger doses, sometimes as high as 3 or 4 Gm. a day. I assume this is so because of the force of the stimulus, emotional or otherwise, at work in the life experiences of the average ambulant patient, which may at times break through the effects of small doses.

The system for the case of paroxysmal fibrillation which I usually pursue in order to prevent recurrences is to give one dose of 0.3 Gm. (5 grains) three times daily until there is an attack. The dose is then raised by 0.3 Gm. (5 grains) per day until there is another attack. The dose continues to be raised from a level of 15 to 30 to 35 or more grains a day until a level is attained at which attacks no longer occur, or minor toxic effects preclude its further use. Raising the daily amount is carried out by shortening intervals between the single doses and then if necessary by increasing the size of the single doses. It may take some time to attain the appropriate level of dosage, but it is safe and sure. Special cases require special modifications.

DR. C. H. WHEELER: How many doses of 0.6 Gm. would you be willing to give in the same twenty-four-hour period? You said every two hours. You mean twelve doses? When do you stop?

DR. GOLD: I have given as many as nine doses of 0.6 Gm. (10 grains) each in this way. Our system of dosage has its own safety controls. It calls for discontinuing the dose when the therapeutic objective—namely, normal rhythm—is attained, or if minor toxic effects appear. If one follows this system, there are few therapeutic failures, and no disasters.

DR. PARDEE: Don't your patients frequently have gastrointestinal symptoms from those doses?

DR. GOLD: Yes, at about 60 grains, or 4 Gm. a day, gastrointestinal symptoms are fairly frequent. Some patients are so sensitive that gastrointestinal symptoms, cramps and diarrhea, occur with the first 0.6 Gm. dose.

DR. EGGLESTON: You find that in the paroxysmal type of fibrillation you require larger total doses than are commonly used for maintenance?

DR. GOLD: Yes, for the protection of the paroxysmal fibrillator against recurrences, rather large doses are usually needed.

DR. STEWART: Dr. Eggleston, it is not the general practice for cardiologists to use the larger doses of quinidine, which Dr. Gold advocates, because of what we think are real dangers in the use of the drug. I think that the students should not be left with the impression that it is the consensus that such large doses should be given or that the drug can be given with the freedom which they might have inferred from Dr. Gold's statement.

DR. GOLD: To avoid misunderstanding, I should add that the doses which I have recommended for the average patient are no larger than those of others. Dr. Stewart has just advocated as high as 2.4 Gm. a day for abolishing an attack, and my plan calls for a very little more the first day. I recommended starting with only 1 Gm. a day and increasing the dosage if necessary for preventing recurrences. I have gone further and

applied a principle which is applicable to a great many drugs if the usual range of dosage fails to produce effects—namely, to continue its administration in increasing amounts until either the therapeutic effects appear or minor toxic symptoms preclude its further administration. I know of no experience with quinidine which makes this procedure inapplicable. As to the very large doses, I have merely indicated that on occasions they are necessary and have pointed out the system by which they may be given with safety.

You may be interested in the experience of S. A. Levine, of Boston, who states that he believes he saved a life in a patient with ventricular tachycardia with a dose of 1.5 Gm. repeated five times a day for several days, when smaller doses were ineffectual.

DR. WHEELER: Dr. Eggleston, I should like to ask whether anyone here has ever seen anything that made him glad that he had given the small test dose of quinidine? When we give quinidine, we don't give a test dose. We do as we do in treating malaria now; we give an initial dose of 0.9 Gm.

DR. EGGLESTON: I am very glad you brought that up. Although I still adhere to the old practice of giving a test dose, I am not convinced in my own mind that it serves any useful purpose.

DR. WHEELER: Has anybody had any experience with that?

DR. STEWART: I have never found any toxic effects from the preliminary dose.

DR. PARDEE: The only interesting thing that dose has ever done in my experience is to stop the auricular fibrillation.

DR. GOLD: I don't think that a test dose ever leads to a change in the course of therapy with quinidine, except for the occasional experience mentioned by Dr. Pardee that it may suffice to terminate the attack. As a means of detecting hypersensitive people and thus protect against poisoning, it seems to be of no value.

DR. WHEELER: But you still do it?

DR. GOLD: No, I don't do it. I never did.

DR. WERNER: Dr. Pardee, I should like to ask whether, in those cases you mentioned in which fibrillation was terminated and normal rhythm was maintained for a year, a so-called maintenance dose was used?

DR. PARDEE: I always stop the quinidine a day or two after normal rhythm is resumed. I think the continued administration is bad for the heart.

DR. EGGLESTON: Do you think that is so in paroxysmal fibrillators who are subject to very frequent paroxysms?

DR. PARDEE: You have to balance factors and take the lesser of two evils.

DR. EGGLESTON: And if the fibrillation were the worse of the two evils?

DR. PARDEE: You always have to bear in mind that there is another method of treating auricular fibrillation, which is the administration of digitalis. It is not so harmful a drug as quinidine in the long run, if properly given.

DR. EGGLESTON: In the event that in a given patient digitalis does not abolish the recurrences do you then ration your patient with quinidine?

DR. PARDEE: Such a case might occur. I have not seen one.

DR. GOLD: I am not at all impressed with the danger of continued use of quinidine in doses sufficient to prevent recurrences.

STUDENT: Dr. Eggleston, I should like to ask whether one could use quinine, if no quinidine were available, and treat with that instead of the quinidine?

DR. EGGLESTON: Dr. Stewart, what do you think about that?

DR. STEWART: As you mentioned historically a few moments ago, quinine was first used for restoring the normal rhythm. That is how this whole business started.

DR. EGGLESTON: Quinine can be used in the absence of quinidine, but it is not as effective in the control of auricular fibrillation, according to all the experience and investigations.

DR. WALTER MODELL: I want to say that if a case of idiosyncrasy is ever discovered with the first dose of quinidine, one might use quinine, because it is an optical isomer of quinidine, and idiosyncrasy for one does not apply to its isomer.

DR. EGGLESTON: You spoke at the very beginning of the use of quinidine in ventricular tachycardia.

DR. DEITRICK: Yes.

DR. EGGLESTON: Would you tell us how you use it?

DR. DEITRICK: From my experience at the hospital, this is the best use for quinidine. I would have no hesitancy in giving it to a patient who has just suffered coronary occlusion. The tachycardia interferes seriously with the heart's action.

DR. EGGLESTON: You tend to subscribe to the idea, proposed from Boston, of the prophylactic use of quinidine in patients with acute coronary occlusion, or do you not?

DR. DEITRICK: No, I do not.

DR. EGGLESTON: You would wait until the tachycardia makes its appearance?

DR. DEITRICK: Yes, as a rule I do.

DR. GOLD: I think it is wise to start the drug if premature ventricular contractions occur, especially if they are frequent, in the course of coronary occlusion. They sometimes presage ventricular tachycardia.

DR. DEITRICK: I might also do so in some cases.

DR. EGGLESTON: How do you feel about that, Doctor?

DR. RANDALL: I do not use it prophylactically as recommended.

DR. PARDEE: In cases with ectopic beats of ventricular origin, I would give it. I would like to ask Dr. Gold to express his opinion about the use of atropine instead of quinidine in such cases. A recent work has suggested that large doses of atropine may have a more powerful protective action against the onset of ventricular tachycardia.

DR. GOLD: I know about the work, but have no experience with it.

DR. CATTELL: It is purely experimental in dogs.

DR. PARDEE: Yes, but it was very good for the dogs. I use quinidine, but I would like to use atropine because I don't think it has such a bad effect upon the myocardium.

DR. EGGLESTON: Would you use the quinidine routinely in coronary thrombosis?

DR. PARDEE: Not routinely, only after the appearance of numerous premature beats.

DR. EGGELSTON: What dosage would you use under those circumstances?

DR. PARDEE: About 0.4 Gm. four times a day.

DR. EGGELSTON: About the same as for control of fibrillation.

INTERN: Is the dose the same for auricular paroxysmal tachycardia?

DR. EGGLESTON: Yes. Either I am very slow in bringing out the various points or we have gotten too interested. But the time has passed and I have to declare the hour over. I wish we could go on because there are a good many points which still ought to be mentioned and discussed.

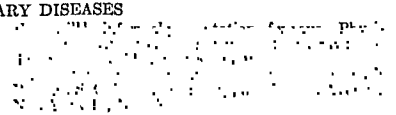
Summary

DR. GOLD: It is difficult to summarize today's conference without repeating it, because of the many phases of the subject of quinidine which were discussed. In what conditions is it especially useful or essential? When quinidine restores a normal rhythm in a patient with auricular fibrillation, how serious is the danger of embolus? Should one attempt to restore normal rhythm in long-standing auricular fibrillation? By what criteria are patients with auricular fibrillation selected as candidates for quinidine treatment? Is there value or danger in the prolonged use of quinidine to prevent recurrences of auricular fibrillation in those with repeated paroxysms? Should quinidine be used routinely to prevent ventricular tachycardia in acute coronary thrombosis? If not, when is it applicable in these cases? Should digitalis and quinidine be used at the same time? Is there value or danger in such practice? These are some of the major questions which were explored in the conference.

Quinidine is an important drug. Its chief value in heart disease is for the control of disorders of cardiac rhythm, not primarily for problems of heart failure. Its most important use is the treatment of ventricular tachycardia, usually an urgent condition in the course of coronary thrombosis. It has use in some cases of auricular fibrillation, flutter, auricular paroxysmal tachycardia, and premature contractions. About these matters agreement seems to be fairly complete. Concerning other details, experiences have differed and reactions to them are variously shaded. Their discussion has supplied a large part of the interest of this conference. Several plans of quinidine dosage to meet various situations have also been presented.

CLINICAL SESSION ON CHRONIC PULMONARY DISEASES

The thirty-fourth Clinical Session on Chronic Pulmonary Diseases, under the auspices of the Tuberculosis Sanatorium Conference of Metropolitan New York, will be held January 10 in the Amphitheater at Cornell University Medical College, 1300 York Avenue, New York. From 7:45 to 8:30 P.M.



NATIONAL PUBLIC HEALTH NURSING DAY

The first National Public Health Nursing Day will be held throughout the country on January 26. The theme of the observance will be "Know Your Public Health Nurse—Who She Is, What She Does." In charge of details is the National Organization for Public Health Nursing, Inc., 1790 Broadway, New York 19, New York.—*J.A.M.A., Nov. 25, 1944*

Special Article

MEDICAL ASPECTS OF JUVENILE DELINQUENCY

ALOYSIUS S. CHURCH, M.D., Lincolndale, New York

AT THE present time the problem of juvenile delinquency is being considered by every type of social agency. Sociologists, teachers, and social workers are accepting the challenge in terms of newer lights thrown on the subject by Child Guidance Clinics. As for the physician, he has concerned himself primarily with the relationship of body to mind and he offers a long record of achievements, especially in maintaining the child's physical organization and permitting the child to survive despite his exposure to virulent and dangerous organisms. It is true that the physician has been labeled somatic-minded, especially with regard to treatment of behavior disorders from the point of view of "infections" or "gland trouble." However, the error of this approach to conduct is no different than that of Watson's, whose behavioristic recipe eliminates the concept of consciousness.

Fortunately, the tonsil and redundant prepuce are not being blamed so much for the child's incivility, surliness, or paradoxically, in some cases, for the child's domesticity, and in others, for his unsociability. Focal infections and abscessed teeth are also taking less blame for aggressiveness and stealing. The physician of today is returning rapidly to the hylomorphic concept, proclaiming man one complete substance, and considering him a body and mind, not accidentally related, but a unified being.

It is strange how this concept, which enjoyed survival from as far back as Plato, became almost completely obliterated by the influence of one man, Descartes, a sixteenth-century philosopher, who propounded the doctrine of psychophysical parallelism, dividing man into two units, body and mind. Since his time, physicians have been victimized by the dichotomy and even in this day, despite the important works of Pavlov,[1] Wolf and Wolff,[2] Crile,[3] and Cannon,[4] the dualistic philosophy has given basis to many practices in the field of medicine.

In the treatment of children who are either rebellious, antisocially aggressive, or socially or vocationally inhibited, psychosomatics brings the problem directly to the physician. In other words, misbehavior is not dissociated from the total child and biologic functioning. Stealing, lying, truancy, disobedience are expressions of a faulty biologic adjustment and fall into the province of the physician. In juvenile delinquency the total child is having difficulty in finding the meeting point of his instinctive needs on one hand, and the laws of God and society on the other. This may be caused primarily, but not solely, by intrapsychic pathology, but always involving the total child as a psychosomatic unity.

In an unprecedented article of 1941 Dr. Vogel[5] discusses delinquency as a medical problem. He gives delinquency the same status as a public health officer gives typhoid fever or diphtheria. "Are not such problems as tantrums, extreme shyness, troublesome aggressiveness, pathologic lying, or stealing in children, matters that concern human welfare, and are they not evidences of levels of health?" The article is a plea for a medical program to reduce divorces, suicides, crime, and juvenile delinquency.

Clinical Observations

1. Malnutrition.—The new science of nutrition has stressed the importance of diet qualitatively and quantitatively. The biologic importance of vitamins has been grossly exaggerated, but this does not mean that they should not be used, especially with children. It is doubtful if vitamins are potentially capable of improving intelligence, as is often claimed, but there is sufficient literature recording significant experimentation with vitamin B. Irritability, moodiness, lack of cooperation, and "meanness" are listed as symptoms of slight vitamin B deficiency by several writers.[6, 7] With more severe vitamin B deficiencies such mental states as apathy, depression, and emotional instability have been observed. The use of vitamin B complex is indicated to supplement a well-balanced diet in delinquent children, especially if they give a history of anxiety, irregular meals, home conditions not conducive to healthful ingestion or digestion, and improper constituency of meals qualitatively, quantitatively, or both.

The delinquent child offers several interesting and significant problems under the heading of nutrition, especially if the problem is related to more primary causative factors of the child's misconduct. These are:

1. Parental rejection (often on unconscious levels)
2. Parental neglect

Clinical Director, Lincoln Hall, Lincolndale, New York.

3 Parental hostilities (not infrequently accompanied by wishing starvation for the child)
4 Parental ignorance
5 Cultural patterns passed on from generation to generation, or neighbor to neighbor Certain races incline specifically to a high carbohydrate diet, devoid of vitamins B and C
6 Inability to prepare vegetables to preserve their nutrient value or inability to prepare the vegetables to entice the child
7 Ineffectuality of parents, which is a frequent finding in case studies of delinquent children Such parents, or parent-substitutes, are unable to supervise a child's diet

Of 750 children admitted to an institution for delinquent boys, ranging in age from 11 to 17, 80 per cent showed evidences of undernutrition or malnutrition in various degrees This is an important finding and must be related to the significance which Freud gave the mouth, especially with reference to stealing, etc Those who live with delinquent children often relate various manifestations of oral deprivation Most delinquent children crave food, steal money for it, and ingest it rapidly They hide food in institutions even when they are assured of 'three squares" They talk about food as much as, if not more than they do about 'Superman" The delinquent child's mode of ingestion leads to a peculiarly high figure for abdominal complaints, and is closely linked to the high incidence of insecurity, tension, restlessness, and for the most part, a need for affection Food represents love and survival for the child

The question of transient hypoglycemic states is a very pertinent one The mode of the delinquent child's life is conducive to episodic or chronic anxiety states Many delinquent children steal and are antisocial because they have experienced hostility from their fathers A child who was beaten by his father at regular intervals, and who was committed to an institution for absconding from home, told of his constant hunger and his ability to satisfy his appetite 'only with lots of candy"

The study of 50 boys admitted to an institution for delinquent children in the first three months of 1943 was made on an informal basis, to determine what they ate at home Some came home for meals but occasionally Many ate at drug-store counters, hamburger stands, and the like Still others, who ate at home, partook of the most discrepant diet imaginable Of these 50, approximately 50 per cent were underweight by more than fifteen pounds, and 80 per cent showed pallor, poor muscle tone, and signs of vitamin A, B, and C deficiency In all cases there was evidence of malnutrition which was easily related to other factors causative of delinquent behavior The insecurity which goes along with hunger may motivate behavior not socially acceptable

In the field of delinquency there is a need for wider acceptance of the fact that to some extent human conduct has its roots in protoplasmic substance, the constituency of which depends upon the nutriments assimilated

2 Sensory Defects—Impaired vision and hearing probably play a greater part in the cause of delinquent behavior than can be statistically substantiated Sense deprivation has a profound influence on the personality and may lay a groundwork for social maladjustment Truancy, as any other delinquent behavior, has a multiple causality, but impaired sensory acuity is closely related to it In one study, 69 per cent of poor readers were found to suffer from incoordination of the ocular muscles Forty-five per cent had low fusion, i e , the image from each eye was not properly blended into a good picture The incidence of poor readers among delinquents is high Blanchard[8] clearly illustrates the relationship between truancy and reading disabilities, and other writers as well attest to the significant bearing of truancy on serious delinquent behavior A poor reader may suffer from laterality, mixed dominance or reversals [9] Witty and Kopel[10] discuss vision as related to personal adjustment Muscle imbalance and fusion difficulty are emphasized in their book "Being free of refractive error does not mean freedom from visual defect" "Muscle imbalance, fusion irregularity, poor depth-perception, deficient acuity, astigmatism, apparently are found with equal and high incidence"

In discussing hearing impairments, a recent quotation from a talk given by Helen Keller strikes home "I consider my deafness to have been much more a serious handicap than my blindness" The implications of this statement are many and serious, and the literature abounds with testimony to the effect that partially deaf persons often manifest withdrawal or aggressiveness Delinquency may find its soil in deafness if not cared for properly or detected early enough Solomon[11] makes a plea for the understanding of the emotional problems of the deaf There is a need for audiometric tests and a still greater need for complete management of the child sufferer and his parents and teachers

3 Endocrine Disorders—Volumes have been written on the subject of the endocrine secretions as potential determinants of human conduct In the field of delinquency, physical immaturity is frequently encountered, and often the concomitant behavior is not compatible with the chronologic age, undoubtedly this is one of the important factors to be considered in the treat

ment or prevention of delinquency. This immaturity is in many cases related to other factors, more particularly, parental rejection or negligence. More and more evidence is forthcoming daily to show positive correlation of physical growth and efficient physiologic functioning with parental love and familial security. Case studies of delinquents reveal that they do not have their affectional needs met. There is indication that the glandular inadequacies do not account for only the physical maldevelopment but also for the decrease in ability of the child to cope with life. The responses of the delinquent are often infantile and immature, and hormonal inadequacy states may stand investigation as possible influences retarding the child's competency and efficacy to deal with the realities.

The mental problems of puberty have been studied[12] and related to "a sense of frustration, defeat, and personality difficulties which often arise from the confused and conflicting neighborhood and family life" of adolescents and preadolescents. Hypogonadism, delayed puberty, cryptorchidism, eunuchoidism must be considered as related to behavior, and delinquent children given more detailed scrutiny especially in terms of the hormonal status. The questions to be asked are: Is the child's state one of insufficiency, and consequent psychic overcompensation? Are his biologic drives augmented or abated by his hormonal situation? Is it directly or indirectly related to the behavior which has become personally or socially problematic? Alexis Carrel made a statement in his recent book which points to this:[13] "No eunuch has ever become a great philosopher, a great scientist, or even a great criminal."

4. Cardiac and Other Disabling Diseases.—With the increase in incidence of rheumatic fever, the cardiac child is encountered in any group of delinquents. In 750 boys, ages 11 to 17, it was estimated that approximately 10 per cent had a history or showed signs or symptoms of cardiac disease. As the cases were surveyed, it became obvious that illnesses of long duration and disabilities play a part in truancy and aggressive behavior. Continuity of school is often interrupted. Fatiguability may lead to overcompensatory attitudes. Such children may suffer anxieties and fears. Long confinement in hospitals and homes often leads to preoccupations not always of the healthful variety. The cardiac child may have a lot of anxiety about his pallor, failure to gain weight, repeated nose bleeds, palpitation, and fatiguability. This anxiety is aggravated in a home with persons who do not give the child security and affection. Boys often find this security and love on the street or in the alleys.

Not infrequently mishaps occur with children suffering from St. Vitus' Dance. They are called disobedient because they do not stand still, are inattentive, or because their "minds wander." In a few selected cases the chorea was of a mild nature, but sufficient to disturb the relationships between pupil and teacher or child and parent.

Much could be offered the child in management and interpretation to parents, especially to those who do not know how to cope with long illnesses. Convalescence management requires consideration of the child's abilities and wishes. Children long confined to bed need not spend long hours in harmful preoccupation. Bibliotherapy and hobbies are in order as part of the treatment. Parental attitudes need to be studied to avoid causing a greater rift between parent and child, good relationships between whom help in the formation of sound social concepts.

5. Deformities.—The attitude of a child toward his deformity can be managed by parent and physician. Parents often need insight into their own attitudes toward the deformity of the child, especially if the child is born with it. If it is acquired, the physician may more easily guide the parents. Crippled and deformed children suffer from feelings of inferiority, low self-esteem, feelings of envy, and suspiciousness, and may withdraw to be asocial or become excessively aggressive. Often their relationships with parents are disturbed by parental rejection, and this lays a groundwork for later poor social relationships. The deformity need not be of a gross nature to be disturbing. Spectacular changes were noted in two boys who had their squint corrected for cosmetic purposes only. Dental replacements, especially of the central teeth, helped several boys to become social beings. The treatment of acne is indicated in all cases. A maldeveloped arm of a boy known as "the claw" appeared, after study of his case, to be the prime factor in his antisocial ideation. Referral to an agency where vocational guidance was offered proved to be helpful.

The problem resolves itself to the management of the whole child and not only his deformity. Some children can "take it," and others cannot. Some may grow normally and socially stronger with a handicap, but studies would show (if they grew stronger) that their deformity was treated in an affectionate setting, and with wise guidance.

6. Epilepsy.—That personality disorders occur in epilepsy is well objectified in abundant literature. Between 1914 and 1933, LaPierce Clark wrote prolifically on this subject. Today the concept of epileptic personality has been given a valid status in the list of medical diagnoses. "Eccentricity, supersensitiveness, emotional poverty, rigidity" are listed as the out-

standing traits of the epileptic personality Children with such traits become turbulent, argumentative, quarrelsome, resent correction, and show stubbornness The epileptic child is as concerned about his ego as is the psychoneurotic about his body. Some writers put it very plainly, "bad behavior is a seizure," and to be sure there are many more epileptic personalities than was formerly known The electroencephalograph is now a distinct help to the physician

It is interesting to note that children suffering from migraine show more socially acceptable behavior They are pleasant, well-mannered, obedient, shy, etc [14]

7. *Postencephalitic Behavior*.—Of all diseases known to produce alterations of behavior, encephalitis has received the most attention The antisocial quality of this behavior has given it a valid and significant place in the study of delinquency. Postencephalitic behavior is said to be characterized by exaggeration of the instincts and of the appetites There is a tendency to be overactive. Most writers record an inability of the patient to inhibit activity [15] The history of the delinquent child, if related accurately, may well throw light on the diagnosis of a behavior problem, especially if the child suffered a persistent high temperature with one of the infectious diseases, or if the mastoid cells were involved.

Summary and Conclusions

The material herein presented is derived from clinical observations which did not lend themselves to statistical presentation, and does not constitute a complete study or survey of literature in the field of medical possibilities in the prevention and treatment of delinquent behavior Such a study of necessity would have to include prenatal care, the process of birth, etc , and give special emphasis to the experience of the orifices in infancy and childhood. The physician's participation in the feeding process and toilet activities gives him an excellent opportunity to lay foundations for sound social concepts later in life Delinquency is a disorder of social adaptation, and as such it has roots in the early relationships with the mother or mother substitute

If such a relationship is one of love, the chances for antisocial attitudes are lessened The physician's task is one of not only preserving biologic structures and functions but also of giving them the sacredness and relationship to the total child and his environment The physician must, by virtue of his training and experience with life processes, be ever concerned about the biologic drives, and their relationship to cultural patterns of life Human relationships, especially those deeply biologic, must be respected and nurtured, maintained, and sustained

Problem children require tedious study, and an attempt should be made to restore the child's total person In the realm of nutrition alone, the physician could contribute effectively In hypoplastic states, all endocrinologic possibilities should be studied In puberal evolution, sex education by the physician or instructed parent would simplify the adolescent's life and permit a more efficient growth Shaming of masturbation should be condemned by physicians. Children should not associate shame or terror with genital functions Children in long convalescence should be supervised to avoid unhealthy preoccupations, and to be given guidance to help them live with their limitations Deformities should be corrected if this is at all possible If not, the parent should be instructed to guide the child into a suitable vocation More detailed examination of the eyes and ears may bring to focus a defect falling within possibilities of correction, and thus removing factors often causative of maladjustment in the school The electroencephalograph should be utilized to discover any cortical dysrhythmias Detailed medical histories may bring to light the possibility of encephalitis, and alter treatment plans for the "bad child"

All told, the chief ingredient of any medical treatment of problem children is love of children to such a degree that it will educe love from children's parents and keepers

To be most effective in combating delinquency, the physician becomes a member of a team, working closely, consisting of the parent, teacher, social worker, nurse, psychologist, and psychiatrist In this way the whole child will be studied and treated

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Nutrition [illegible]

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Case Report

LANATOSID-C

Clinical Experiences with Selected Cardiac Cases*

BERNARD M. SCHOLDER, LT. COMDR., MC(S), USNR

THE isolation in recent years of crystalline digitalis glycosides has marked a distinct advance in digitalis therapy. The variations in potency of different digitalis products used in man have been stressed by other workers.[1] These experiences have stimulated interest in the use of crystalline preparations which can be standardized gravimetrically and hence do away with the necessity of bio-assay.

Lanatosid-C (marketed under the name of cedilanid†) is a pure crystalline glycoside obtained from Digitalis lanata. It has been investigated sufficiently[2-8] to show that it is pharmacologically active and clinically safe. Reports are also available which indicate its clinical behavior.

Fahr and LaDue[2] stated: "Our results indicate that this drug should now have wide clinical trial so that we may be fully informed as to its advantages over the usually employed purpurea preparations." With a view to extending clinical observations the present study was undertaken in May, 1941. The report herein submitted deals with purely clinical studies made on a group of patients selected from clinics, wards, and private practice. The indications for the use of this product were the same as those for digitalis purpurea. No attempt was made to run "controls." Rather was it desired to administer the drug in the same manner as digitalis purpurea would have been and "see how it works." The patients selected were, therefore, those who were not receiving any digitalis at the time of the first observation, or those whose response to digitalis purpurea was not satisfactory.

Classification of Patients

The patients followed during the period from May 1941, to May, 1943, fell into the following categories:

A.	Cause	
	1. Hypertension	19
	2. Arteriosclerosis	5
	3. Rheumatism	14
	4. Unknown	1
B.	Rhythm	
	1. Auricular fibrillation	21
	2. Normal sinus rhythm	16
	3. Auricular flutter	1
	4. Auriculoventricular nodal rhythm	1
C.	Functional	
	Class II	20
	Class III	5
	Class IV	14
D.	Ages	
	11–20	1
	21–30	2
	31–40	6
	41–50	5
	51–60	8
	61–70	6
	71–80	8
	81–90	3
E.	Sex	
	1. Female	30
	2. Male	9

Case Reports

Case 1.—The following case demonstrates the efficiency of the drug when used intravenously: A. S., a white woman of 29, had rheumatic heart disease with superimposed subacute bacterial endocarditis. On September 24, 1941, at 11:30 A.M., one hour after a blood transfusion, she complained of shortness of breath and tightness in the chest, relieved by elevation of the head. At 4:00 P.M. she again complained of tightness in the chest and a choking sensation. At 4:15 P.M. her pulse was imperceptible, the ventricular rate was 160 to 180 and irregular; the blood pressure was not obtained; there was marked pallor and cyanosis of the nails and lips; she was given oxygen, carotid sinus pressure, 1 cat unit of digitalis purpurea intramuscularly, without effect on the ventricular rate. Table 1 shows patient's response to intravenous injection of the medication.

TABLE 1

	Ventricular Rate		
September 25			
9:30 A.M.	180		
11:00 A.M.	180		
11:30 A.M.	160	Regular	Cedilanid—0.4 mg. (2 cc.) i.v.
12:30 P.M.	120	Regular	Cedilanid—0.4 mg. (2 cc.) i.v.
2:30 P.M.	110	Regular	Cedilanid—0.4 mg. (2 cc.) i.v.
10:00 P.M.	110	Regular	Cedilanid—0.4 mg. (2 cc.) i.v.
September 26			
A.M.	110	Regular	Cedilanid—0.4 mg. (2 cc.) i.v.
9:00 P.M.	88	Regular	Cedilanid—0.4 mg. (2 cc.) i.v.

* The cases presented herein were selected from the Medical Service of Montefiore Hospital, New York, from the Medical Service of Mount Vernon Hospital, Mount Vernon, New York, and from private practice.

† Manufactured by Sandoz Chemical Works, Inc., to whom the author is indebted for generous cooperation in supplying the tablets and ampules used in this study.

The opinions or assertions contained herein are those of the writer and are not to be construed as official or as reflecting the views of the Navy Department or of the Naval Service at large.

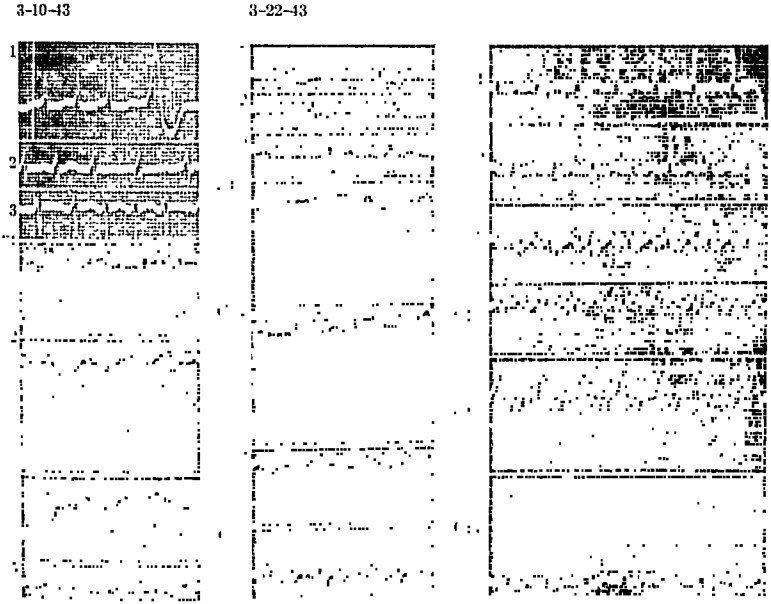


FIG. 1A FIG 1B FIG 2

FIG. 1A. Electrocardiogram of Case 2 (G. B.) taken on admission to hospital after long period of treatment [illegible] Note rapid ventricular rate and no digitalis effects.

FIG. 1B. [illegible] aken twelve days after admission and treatment with [illegible] gments.

FIG. 2. [illegible] Follow-up was not [illegible] restored.

Case 2.—The following case illustrates the effects in auricular fibrillation: G. B., a 58-year-old woman, had hypertensive heart disease with auricular fibrillation of four years' duration; she had had several episodes of congestive failure. She was kept on digitalis purpurea, 1 cat unit daily. During four months before the first observation the congestive heart failure increased; digitalis purpurea was increased to 3 cat units daily; she was also given ammonium chloride and injections of salyrgan-theophylline. She was first seen on March 9; she was admitted to the hospital with dyspnea, cyanosis, peripheral edem[illegible] [illegible] [illegible] [

was possible to make several experiments during a two-year period of observation of this patient. From May, 1941, to September, 1941, both cedilanid and ammonium nitrate were discontinued at different periods; with both medications discontinuation was followed by an increase in weight, rate, and size of the liver. Then from September, 1941, to March, 1942, the patient was kept stabilized on 1.5 mg. of cedilanid and 4 Gm. of ammonium nitrate daily. When cedilanid was discontinued the weight, ventricular rate, and liver size increased. On resumption of cedilanid weight, rate, and liver size were reduced. The patient was stabilized again for a period of two months, cedilanid was discontinued, and there was again an increase in weight, rate, and size of liver. When cedilanid was resumed there was a return of the figures to previous levels. These repeated observations demonstrate the efficacy of the drug in a case of normal sinus rhythm.

Case 4.—This case illustrates the effect of the drug in paroxysmal fibrillation. F. H., a 65-year-old woman, had hypertensive heart disease. She was first seen on March 30,1943, at 4:30 P.M. with auricular fibrillation and a ventricular rate of 140. The exact onset was not determined, but from the history it was assumed to have occurred three to four days before the first observation. Cedilanid, 0.4 mg., was given intravenously. Within ten minutes the rate dropped to 120; at 7:30 P.M. the ventricular rate was 100; 1.5 mg. of cedilanid was then given by mouth. The next day the auricular fibrillation persisted with a ventricular rate ranging around 90, and the patient was given 2.0 mg. of cedilanid by mouth during the day. On April 1 at 3:30 P.M. normal sinus rhythm was restored and on this day an additional dose of 1.5 mg. had been administered. In this patient a total of 5.4 mg. was given in forty-eight hours. The patient maintained sinus rhythm until May 1, 1943; at 2:00 A.M. she was awakened by pain in the chest and a choking sensation which lasted until 11:00 A.M.; it returned again at 2:15 P.M. and remained severe for about two hours. On May 3 pain recurred twice during the day. On May 4 the patient was seen at 5:45 P.M. with auricular fibrillation and ventricular rate of 120 and marked pulse deficit; at 5:55 P. M. 0.8 mg. of cedilanid was given intravenously; at 6:05 P.M. the ventricular rate was 110; at 6:10 P.M. the ventricular rate was 96; at 8:15 P.M. auricular fibrillation was present, the ventricular rate was 84, there was no pulse deficit. At 11:00 P.M. her condition was the same; the patient was given 1.0 mg. of cedilanid by mouth. On May 5, at 2:00 P.M. auricular fibrillation was 96, there was no pulse deficit, and slight nausea was present; she was given 1.0 mg. of cedilanid by mouth. On May 6, 1:30 P.M., the ventricular rate was 72, slight nausea occurred, and cedilanid was discontinued. On May 10 there was auricular fibrillation, the ventricular rate was 90, and there was no nausea; cedilanid was resumed, 1.0 mg. daily. On May 19 the patient had normal sinus rhythm, ventricular rate of 70, no nausea, and was feeling very well. The first attack, lasting five to six days, was brought under control within forty-eight hours. The second more persistent attack lasted nineteen days, during which time the ventricular rate was well controlled by cedilanid with the eventual restoration of sinus rhythm.

Case 5.—J. C., an 84-year-old man, had arteriosclerotic heart disease; he was first seen on May 8, 1943, complaining of cough, discomfort in his chest, cyanosis of the lips, rapid ventricular rate, 150, shown by electrocardiogram to be auricular flutter with 2:1 block (Fig. 2). He was given 9.0 mg. of cedilanid from May 8 to May 11; on the latter date sinus rhythm was restored, and the ventricular rate was 68. It was not possible to obtain a follow-up electrocardiogram.

Case 6.—H. G., 45, had arteriosclerotic heart disease. Between 7:00 and 7:30 P.M. the patient noted onset of tachycardia with a feeling of faintness. He was seen at 9:45 P.M.; the ventricular rate was 188, the pulse was very small, blood pressure was 96/80, the electrocardiogram showed auriculoventricular nodal tachycardia; at 10:10 P.M. the ventricular rate was 180; 0.8 Gm. (4 cc.) of cedilanid was given i.v.; the ventricular rate was taken every five minutes. No change occurred until 10:40 P.M., when the ventricular rate was noted to be 104. The blood pressure was 110/80 and the pulse was of good quality and strong. The electrocardiogram showed sinus rhythm, which mechanism was maintained.

The following cases illustrate the results obtained in patients with auricular fibrillation:

Case 7.—M. B., a woman of 57, had rheumatic heart disease; the ventricular rate was reduced from 108 to 64 after one month on 1 mg. of cedilanid daily. This medication was discontinued because of nausea.

Case 8.—E. D., a woman of 36, had heart disease of unknown cause; the ventricular rate was unaffected after one month. The average dosage of cedilanid was 1.0 mg.; nausea developed so the drug was stopped for two weeks, then resumed gradually, but was discontinued after one month because of nausea. No reduction of rate was obtained.

Case 9.—M. G., a woman of 59, had rheumatic heart disease. 1.0 mg. of cedilanid was given daily; ventricular rate was maintained between 70 and 80.

Case 10.—L. G., a 48-year-old woman, had rheumatic heart disease. The ventricular rate was reduced from 104 to 80 after two weeks of cedilanid therapy, 1.0 mg. daily.

Case 11.—R. L., a woman of 63, had hypertensive heart disease. The ventricular rate was reduced from 90 to 64 after four months' observation by administration of 1.5 mg. of cedilanid daily.

Case 12.—H. M., a man of 52, had hypertensive heart disease, ventricular rate of 96, liver two finger-breadths below the costal margin. Medication was begun with 1.5 mg. of cedilanid daily; it was gradually increased, over a period of three months, to 3.0 mg. daily. No effect on the heart rate or liver was noted; his weight increased 8 lbs.

Case 13.—M. P., a man of 66, had arteriosclerosis. His ventricular rate was reduced from 120 to 80 by administration of 1.0 mg. of cedilanid daily, on the average, for five months.

Case 14.—H. S., a man of 32, had rheumatic heart disease. His ventricular rate was 104. No change occurred on 0.5 mg. of cedilanid daily for one month.

Case 15.—M. S., an 80-year old woman, had hypertensive heart disease, with a ventricular rate of 138 which was reduced to 80 after 12 cc. (2.4 mg.) i.v. of cedilanid; it was kept around 80 with 4 cc. (0.8 mg.) i.v. every ten days.

Case 16.—A. C., a 35-year-old woman, had rheumatic heart disease, with rapid, paroxysmal fibrillation; she was given 0.5 Gm. of digitalis purpurea orally, then 0.4 mg. cedilanid i.v.; the rate was reduced from 150 to 78 in eighteen hours.

Case 17.—M. H., a woman of 65, had hypertensive heart disease, with a ventricular rate of 100. The

rate was kept around 90 during operation for appendicitis on 0.4 mg. of cedilanid i.v.; then it remained around 100 on a postoperative dosage of 1.0 mg. daily.

Case 18.—E. R., a woman of 79, had hypertensive heart disease with a ventricular rate of 80–90; she was given 1.0 mg. of cedilanid daily.

Case 19.—M. G., a 39-year-old woman, had rheumatic heart disease with a ventricular rate of 130. She was given 7.0 mg. of cedilanid in thirty-six hours; the ventricular rate decreased to 84. Then she was given an average of 1.0 mg. daily, which

[illegible] ertensive
of cedila-
g. daily;

Case 21.—B. D., a woman of 38, had rheumatic heart disease, with paroxysmal fibrillation of 146; 0.8 mg. of cedilanid i.v. in five hours; the ventricular rate was 72 next day.

Case 22.—F. B., a woman of 49, had rheumatic heart disease. She was given 1.5 mg. of cedilanid daily. The ventricular rate was 70–80.

Case 23.—G. L., a woman of 57, had rheumatic heart disease; the ventricular rate was 100–140. six cc. of cedilanid was given i.v., then 1.0 mg. twice a day for five days. The ventricular rate dropped to 60–80.

Case 24.—J. H., a woman of 48, had rheumatic heart disease, and a ventricular rate of 120–140; headache and nausea were produced after 10.0 mg. of cedilanid was given in seven days; no reduction in ventricular rate occurred.

The following cases illustrate the results obtained in patients with normal sinus rhythm.

Case 25.—H. B., a 75-year-old woman, had hypertensive heart disease with a ventricular rate of 104; [illegible]

given 1.0 mg. of cedilanid daily. No reduction occurred after two months.

Case 27.—[illegible] ensive
heart disease [illegible] ich
increased to [illegible] of
cedilanid.

Case 29.—S. L., a 62-year-old woman, had hyper- [illegible] seen

[illegible]

disease.
She recei

Case 3
sclerosis. His ventricular rate was reduced from 70 to 58 by a dose of 1.0 mg. of cedilanid daily.

Case 31.—B. R., a man of 78, had hypertensive heart disease [illegible] He was
[illegible] veloped
[illegible] weeks.
[illegible] ensive;
[illegible] was given 1.5
with no change.
as hypertensive,

with a ventricular rate of 84. No change occurred after 1.0 mg. of cedilanid was given daily for three and a half months.

Case 34.—M. P., a woman of 30, had rheumatic heart disease, with a ventricular rate of 120. She was given 14 cc. (2.8 mg.) of cedilanid i.v. in ten hours, to no avail; the patient died.

Case 35.—M. S., a 71-year-old woman, had hypertensive heart disease, with a ventricular rate of 92; this increased to 120. She was given 1.0 to 1.5 mg. of cedilanid for four days, but she died.

Case 36.—M. M., a woman of 65, had hypertensive heart disease, with a ventricular rate of 80–100; after one week's bed rest, then 1.5 mg. of cedilanid for five days, the ventricular rate was 40–60.

Case 37.—L. M. S., a woman of 39, had hypertensive heart disease. She was given 1.0 mg. of cedilanid three times a day for three days; nausea and

[illegible]

Case 38. [illegible] heart disease with a ventricular rate of 84. His liver extended two finger-breadths below the costal margin; his weight was 184. He complained of a slight headache.

Interlobar infusion was present in the right lung with moist rales at the left base. He was given 1.0 mg. of cedilanid daily in addition to am-

[illegible]

continued because of nausea and headache.

Summary

The data herein presented illustrate the results obtained with lanatosid-C. They demonstrate that effects comparable to those which can be obtained by the use of digitalis purpurea may be expected with this drug.

Patients have been maintained for long periods without noting any side reactions peculiar to this preparation. The average oral dose has varied from 0.5 mg. to 1.5 mg. daily. Where it was found necessary to go above 1.5 mg. daily, results were not satisfactory. As much as 3.0 mg. daily for one month was given orally to one patient (Case 12—H. M.) without any deleterious effects; in another patient (Case 1—A. S.) 3.0 mg. in twenty-four hours was administered intravenously without untoward action.

In two patients with auricular fibrillation, nausea and headache occurred after the oral administration of 5.0 mg. over a seven-day period. These toxic effects were observed without a corresponding slowing of the ventricular rate. In one patient with sinus rhythm, there was nausea and headache after oral dosage of 1.5 mg. in twenty-four hours. All others tolerated the drug well.

Conclusions

It is not intended in this report to convey the impression that lanatosid-C is necessarily superior to digitalis purpurea in the results obtained; but its routine use is recommended as a *refinement* in digitalis medication.

The appeal of the crystalline glycosides of digitalis derives from the following: (1) biologic standardization is eliminated; (2) potent and dependable [illegible] absorption
[illegible] purpurea
[illegible] excessive

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Correspondence

[Continued from page 44]

is 100 per cent incorrect. Reclassification was NOT carried out by the medical staffs themselves. As can be seen from the above excerpts, Blue Cross first put pressure on the hospitals. The so-called "reclassification" was then carried out by committees appointed by the hospitals, not by their staffs. Since then it has been wholly repudiated by the medical staff of the only one of the two hospitals in Niagara Falls, New York, which has the legal right to do so.

After the Niagara Falls physicians were "reclassified," as Mr. Metzger so delicately put it, subsequent utilization of Blue Cross contracts dropped to within 2 or 3 per cent of "normal," he points out. This is an attempt to make it appear that the local doctors had been responsible for alleged excessive utilization of Blue Cross contracts in Niagara Falls.

The real fact of the matter was that, from the first, Blue Cross coverage was consistently misrepresented to the public as a cut-rate contract for hospital care. Monthly payroll deductions entitled the subscriber to so many days in the hospital each year (or so he thought). Almost every subscriber had the same idea and made the same statement, "I am paying for it, so I may as well use it." That was their understanding of it. But it was not what they had bought! (Or were sold.) It wasn't insurance! When it was suggested that a survey be made to see why so many subscribers had the same misunderstanding of their coverage, this was not done. The contracts were selling well and evidently nothing was desired that would cool the public's enthusiasm. Furthermore, when excessive utilization of hospital contracts was taking place in Niagara Falls, Blue Cross was accepting the "*excessive*" cases. This acceptance helped business. It stimulated subscriptions. More people bought "insurance" (or so it was called). More money flowed in and it seemed a shame to stop it. But when disbursements exceeded receipts, that was the time to seek scapegoats. Blame it on the doctors! That was the easiest way! The public of Niagara Falls had been deceived, and by permitting misunderstandings of the contract to persist, and by "accepting" cases, Blue Cross was guilty of the deception.

The implication that excessive utilization was the doctors' fault should not go unchallenged. Doctors were powerless and they were unfairly treated. When the time came to do something about the alleged excessive utilization of hospital service contracts, instead of blaming the doctors, and hurting them, the hospital service corporation should have insisted that the hospitals furnish the service regardless of their rates; and that a campaign be started to correct widespread misunderstanding of the contract and to educate the public on what they were actually buying. This would have entailed no more than a temporary lowering of local hospital rates for Blue Cross cases. Since workmen's compensation cases were being charged less than actual daily costs, this would have been nothing new.

Doctors were not consulted about risks. There were no medical examinations of applicants. Physicians were supposed to "cooperate"—and to explain contracts *after* the patients had purchased them, not before!

In spite of the complete cooperation of the local medical profession from the time the Blue Cross started until the present time, Mr. Metzger seems arrogant and critical. In his Annual Report of the Hospital Service Corporation of Western New York for the year ended December 31, 1943, under the heading: "General Commentary," he says, "In my opinion the medical profession, through its official organization of medical societies and in the Medical Plan, have grossly failed in a realistic attitude toward the needs and demands of the subscribing public." Further on he states, "In last year's report I urged consideration of more comprehensive contracts following a national uniform pattern. A great deal of work has been done on that subject, but the opposition of the medical profession has, in this area at least, checked our efforts short of accomplishment."

Mr. Metzger is condemned by his own statements! What better proof can be offered that the inclusion of medical benefits in group hospitalization contracts will interfere with medical practice and put too much power in lay hands?

Moreover, there is much thoughtful and competent opinion that these problems will not be solved, as Mr. Metzger says, by a "comprehensive coverage contract following a national pattern," whether drawn by Washington "planners," or by private enterprise. Conditions in different localities vary too widely. The reason people don't buy health coverage in addition to group hospital insurance is that they feel they have too many payroll deductions as it is.

It is unfair to blame this on doctors. Today, the hospitals are filled. There is a shortage of manpower. People have full pay envelopes. But what of tomorrow? What of the day that 4,000,000 men and women are released from war production? Where then are payroll deductions coming from? Would it not be more logical for hospital service corporation directors to begin wondering what is going to take the place of these payroll deductions after the war?

In all probability, many of the hospitals and hospital service corporations will have to seek state or federal government subsidies. The question is whether such grants-in-aid to needy hospitals and hospital service corporations will include intolerable lay dictatorship to the medical profession. The doctors left behind should see that the 50,000 physicians in the armed services do not return to political and lay domination of medical and hospital service in the United States.

R. H. SHERWOOD, M.D.

Niagara Falls, New York
November 22, 1944

Case Report

AN UNUSUAL SOURCE OF ERROR IN BASAL METABOLISM DETERMINATION

LEON J. WARSHAW, M.D., New York City

THE determination of the basal metabolic rate by the usual clinical methods is not a difficult procedure and satisfactory tracings may be obtained by the average trained technician. However, the results must be carefully examined in the light of the clinical findings before they are accepted as a true measure of a patient's metabolic activity.

This technic will often lead to the discovery of an error which, if undetected, would have led the physician astray in his diagnosis and treatment. Most of these errors are due to leakage of oxygen from the closed system of the apparatus. In calculating the results, therefore, it will appear that the patient has utilized a larger volume of oxygen per unit of time and will result in the calculation of a higher metabolic rate than actually exists. The most common source of leakage of oxygen, assuming that the apparatus is in good working order, is a poorly adjusted mouthpiece or face-mask. This error can almost always be eliminated by a careful technician with the cooperation of the patient. The following case illustrates a hitherto unreported source of loss of oxygen which can be discovered only by a careful examination of the patient, and which, if undetected, may account for the failure of certain cases of supposed hyperthyroidism to respond to treatment.

Report of Case

A 40-year-old Filipino laborer was admitted to Bellevue Hospital on March 2, 1943, complaining of generalized weakness and weight loss. He had considered himself to be perfectly well until about ten months before admission, when he noted the gradual onset of slight malaise, weakness, and the loss of 30 pounds. These conditions progressed very slowly until about three weeks before admission when he developed mild generalized muscular and joint aches unaccompanied by any objective signs of inflammation. The patient denied any history of chills, fever, night sweats, hemoptysis, anorexia, nervousness, tremors, or skin rashes as well as symptoms relating to the gastrointestinal and genitourinary tracts. He denied known exposure to tuberculosis. The past history and family history were noncontributory.

Physical examination revealed a slight but well-developed, moderately well-nourished male who appeared younger than his stated age. His temperature was 99 F., pulse rate 96, respiratory rate 20, blood pressure 132/84, and weight 104 pounds. The skin was clear and normally moist. The eyes revealed [illegible] There wa[illegible] remarkab[illegible] tympanic [illegible] rounded [illegible] inferior [illegible] injected. There was a full set of teeth in good repair and the tongue was moist and protruded in the midline. The gag reflex was absent. The tonsils were hypertrophied, cryptic, and moderately injected. The pharyngeal mucosa was moderately injected. The neck was supple and the thyroid gland appeared to be normal in size and consistency. [illegible] were of good quality, the first sound at the apex being split and the pulmonic second sound being slightly louder than the aortic. The rhythm was regular and a localized soft, blowing systolic murmur was heard at the apex. The abdomen was soft, no abnormalities being noted other than slight deep tenderness along the path of the descending colon. The genitalia were normal. Rectal examination revealed good sphincter tone and a prostate gland that was normal in size and consistency. The extremities were not remarkable, no tremor or focal weakness being noted. The reflexes were equally [illegible] smear. The urine was normal and examinations of the stool for occult blood, ova, and parasites were negative. The blood Wassermann was negative and the erythrocyte sedimentation rate (Westergren) was 6 mm. in one hour. The serum cholesterol was 100 mg. per cent. A chest x-ray was reported as showing "no infiltration or consolidation of either lung" and x-ray studies of the stomach, duodenum, and colon revealed no pathology.

After a number of days in the hospital, the patient's chart revealed a slightly elevated pulse rate which, even under basal conditions, ranged between 90 and 100. Because of this finding, the history of weight loss, and the low serum cholesterol, a basal metabolism test was ordered and the astonishing figures of +198 and +201 were obtained. In view of the fact that these results were clearly incompatible with the clinical status of the patient, it was assumed that the machine was defective. Accordingly, the apparatus (a Benedict-Roth machine) was dismantled, the parts carefully examined, certain of [illegible] reassembled. Tw[illegible] peated, the results [illegible]

These determinations were carefully reviewed. The patient was reasonably intelligent and cooperative and was under observation throughout the entire determination. He had a complete set of teeth and the mouthpiece fitted well. The tracings were smooth and uniform and the usual [illegible]

From the First Medical Division, Bellevue Hospital, New York City.

was negative. While these results were manifestly unbelievable, nevertheless it was felt that the patient probably did have a mild hyperthyroidism and that a therapeutic trial of iodine was warranted. Accordingly, he was given 10 mg. of Lugol's solution three times daily. There was a very slight clinical improvement but the patient did not gain weight. One week later, the basal metabolic rate was determined to be +48 and +50. Prior to this test, it was suggested that the perforated tympanic membrane noted on admission could have been the source of the oxygen leak responsible for the bizarre results. Therefore, without detaching the apparatus and disturbing the patient as little as possible, the right external auditory canal was packed with cotton soaked in mineral oil. Under these conditions, the results were calculated to be +10 and +21.

Twelve days later, the tests were repeated, four tracings being made. The first, under the usual conditions, resulted in a +210 reading; the second, with the right ear packed, was calculated at +68. The packing was removed for the third and the figure of +208 was obtained. Reinsertion of the packing for the fourth tracing caused a reduction of the rate to +70.

The patient had noted only minimal improvement while on iodine therapy and had gained no weight during his stay in the hospital. At his own request, the patient was referred to the Out-Patients' Department but he failed to keep his appointments.

Discussion

In this case, it was clear that the basal metabolism determinations as performed were of no value in estimating the metabolic activity of the patient. The oxygen consumption varied with the amount of leakage via the eustachian tube and middle ear through the perforation in the tympanic membrane. Since this was a variable factor and since the external auditory canal could not be satisfactorily sealed, no reliability could be placed on the results. Therefore, it is suggested that, in cases where the basal metabolic rate seems high in proportion to the history and clinical findings, and where other sources of oxygen leak have been eliminated by careful technic, the patient's ears be examined to see if a perforation of the tympanic membrane exists.

Summary

A case is presented illustrating the fact that a perforated tympanic membrane may represent a source of oxygen leak during the determination of basal metabolic rate, thereby causing a variable error which leads to the assumption of a higher rate than actually exists.

THE OUTLOOK FOR MENINGOCOCCAL MENINGITIS

Epidemics of meningococcal meningitis are known to occur irregularly in cycles, which usually last from two to five years. There are, in addition, secondary rises and falls in incidence, with peaks occurring during the fall and winter of each year within a large epidemic cycle. During the course of an epidemic a comparison of the incidence of the disease at any time of the year with its occurrence during the corresponding period of the preceding year may therefore give some clue whether the epidemic is waxing or waning, and in this way one may predict whether more or fewer cases are to be expected during the following year and even during the succeeding weeks and months.

A recent summary of the incidence of meningitis, which is included among the morbidity reports of notifiable diseases,[1] indicates that there were more cases during the year 1943 than in 1942. A total of 612,068 cases were reported during the former, and 546,023 cases during the latter. The provisional mortality figures for the first nine months of 1943 show more strikingly the increase in the disease that occurred during that period over the corresponding months of the two previous years.[2] The mortality in thirty-eight states during 1943 was 2.0 per 100,000 of population, as compared with 0.6 during 1942 and 0.5 during 1941. There were deviations from these figures in certain parts of the country, but the great majority of states had rates that were quite similar, both qualitatively and quantitatively. Notable exceptions are Pennsylvania and Montana; in the former the mortalities were, respectively, two and a half and three and a half times as great in 1941 and 1942 as in 1943, and in the latter the 1943 figure was 8.0 deaths per 100,000 population, as compared with 0.4 for each of the two previous years.

More recent figures, however, offer encouraging evidence that the epidemic is subsiding or at least is beginning to decline. In the morbidity reports for the week ending March 11, 1944,[3] the weekly incidence of meningococcal meningitis was lower that that for the corresponding week last year, this being the first time that a decline had been noted. Subsequent reports[4] showed that the downward trend continued during four successive weeks, but during the week ending April 22, the incidence was slightly higher than in the previous year. Such slight irregularities are to be expected, owing to variations in the occurrence of the disease in different parts of the country, and do not necessarily interfere with the general trend of the epidemic incidence; in fact, the very next report[5] indicates that the downward swing was continuing.

Although the epidemic appears to be subsiding, there will undoubtedly be appreciable numbers of cases of meningococcal meningitis during the coming fall and winter, with a peak that will be appreciably lower than that of the past year. Physicians must still be on the lookout for cases and must treat them early and adequately with sulfonamide drugs to keep the mortality at a minimum. One should also be on the lookout for cases of meningococcemia without meningitis, since such patients respond promptly to sulfonamide therapy and since early treatment usually forestalls meningitis and other focal complications, such as arthritis and endocarditis.—*Editorial, New England J. M., July 20, 1944*

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[1] Pub. Health Rep. 59: 376 (1944).
[2] *Ibid.*, p. 594.
[3] *Ibid.*, p. 372.
[4] *Ibid.*, p. 558.
[5] *Ibid.*, p. 598.

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Postgraduate Medical Education

Programs arranged by the Council Committee on Public Health and Education of the Medical Society of the State of New York are published in this section of the JOURNAL. *The members of the committee are Oliver W. H. Mitchell, M.D., Chairman, (428 Greenwood Place, Syracuse); George Baehr, M.D., and Charles D. Post, M.D.*

"Penicillin and Sulfonamide Therapy"

POSTGRADUATE instruction in penicillin and sulfonamide therapy was arranged for a meeting of the Chenango County Medical Society.

The meeting was held at 1:30 P.M., December 12, at the Norwich Club, Norwich.

Dr. Frederick N. Marty, instructor in clinical medicine, Syracuse University College of Medicine, spoke to the group.

He was presented by the Medical Society of the State of New York and the State Health Department.

Genitourinary Infections

INFECTIONS of the genitourinary tract was the subject of postgraduate instruction that was given before the Wayne County Medical Society, at a meeting on December 12 at 6:30 P.M. at the Hotel Wayne, Lyons.

Dr. Thomas F. Laurie, professor of clinical surgery, Syracuse University College of Medicine, spoke to the group on the subject.

He was presented by the New York State Medical Society and the State Health Department.

MEDICAL AID TO DEPENDENTS OF SERVICEMEN WIDENED

Recognizing the welfare of service men and their families as "a primary obligation," the North Atlantic area of the American Red Cross has adopted a plan providing for admission of "a limited number" of servicemen's dependents to voluntary hospitals without involved investigations of their financial status, E. Roland Harriman, manager of the North Atlantic Area, said yesterday.

The plan, developed by Brig. Gen. Ralph K. Robertson, of the Second Service Command, provides that the city pay $3.25 a day for each patient, the private hospital making up the rest. No money is required from the Red Cross.

"The voluntary hospitals have been most generous for years in the admission of large numbers of servicemen's dependents referred to them by Red Cross chapters," Mr. Harriman said. "A similar cordial cooperation has been given by the city hospitals and the Department of Welfare."

The new plan, he said, will create "a slight difference of emphasis which will make the service of voluntary hospitals more readily available." Proof only of dependency and medical indigence will be required for admission, eliminating the investigation usually made for "charity cases."

AWARD OF SEDGWICK MEMORIAL MEDAL TO DR. GOODPASTURE

Ernest W. Goodpasture, M.D., professor of pathology, Vanderbilt School of Medicine, received the Sedgwick Memorial Medal at the opening ceremonies of the Seventy-Third Annual Meeting of the American Public Health Association in New York City, October 3-5. He is the fourteenth winner of the medal, "For distinguished service in public health."

Doctor Goodpasture is best known for his work in originating a method for cultivating micro-organisms of typhus fever—the so-called Rickettsias. With his coworkers in Vanderbilt University, he discovered that these organisms would grow when planted in a certain portion of the developing hen's egg. This method has now achieved world-wide acceptance and is the basis of the preparation of vaccines for European typhus, the endemic typhus of the southern United States, Rocky Mountain spotted fever, and some of the diseases such as Japanese river fever, the tsutsugamushi disease, that are a serious menace to American troops. He has also made contributions in pathology including the development of a stain by which it is possible to identify the very small elementary bodies of smallpox.—*Health News, Oct. 16, 1944*

GORDON AND LEVINE GET AWARD IN PEDIATRICS

"For outstanding achievement in research in nutrition of infants and children," Dr. Harry Gordon, assistant professor of pediatrics, and Dr. S. Z. Levine, professor of pediatrics at the Cornell University Medical College, were joint recipients of the first annual Borden Award, to be adminstered by the American Academy of Pediatrics. Presented at the Academy's Wartime Conference on Child Health in St. Louis, Missouri, the award was made for metabolic studies on the nutritional requirements of premature and full-term infants. These studies contribute a physiologic basis for individualized feeding.

The Borden Awards, which carry with them a commemorative gold medal and $1,000, were established in 1937 to encourage and give recognition to scientific research in the fields related to the food industry.

They are administered by seven scientific associations.



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DRISDOL in Propylene Glycol makes it possible to secure the benefits obtainable from combining vitamin D with the daily milk ration. This preparation is simple, convenient and easy to use, and relatively little is required for prophylaxis and treatment of rickets—*only two drops daily.*

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Medical News

Congress on Medical Education and Licensure and Annual Session of the Federation of State Medical Boards to Be Held in Chicago in February

The forty-first Annual Congress on Medical Education and Licensure will be held on Monday and Tuesday, February 12 and 13, 1945, at the Palmer House, Chicago. The annual session of the Federation will be held during the Congress.

Following the custom of the last two years, the Council on Medical Education and Hospitals of the American Medical Association will arrange the program for the first day, while the Federation will be responsible for the program on the second day.

The tentative program for the first day indicates that it will be devoted in the forenoon to the general question of Pan-American relations in medicine and medical education. The afternoon session will be devoted to the continuation of education of medical officers, in which the Surgeons General of the Army, Navy, and Public Health Service will participate.

On Monday evening the annual Federation dinner will be held at the Palmer House, at which a prominent speaker will deliver the principal address. The president of the Federation, Dr. J. F. Hassig, of Kansas City, Kansas, will also present his annual address during the dinner program.

The discussions of the second day will be concerned mainly with medical licensure and will be of special interest to state medical boards, as follows:

1. Licensure regulations affecting medical officers returning to civil practice: To what extent will credit be given for military service?
2. Will graduates of nonapproved medical schools be given certain licensure privileges because of military service?
3. The attitude of state boards toward the proposed legislation recommended by the Procurement and Assignment Service of the War Manpower Commission, Washington, D.C., for the temporary licensing of physicians including those who served as commissioned medical officers of the Army, Navy, or United States Public Health Service, as well as those who rendered medical service during the period 1940–1945 in industry or in a civilian community.
4. Relation of licensing boards to the graduates of medical schools continuing the acceclerated program in the postwar period.
5. Advisability of the adoption of the hospital internship as a prerequisite for licensure in the twenty-five states at present not requiring same.

Further suggestions regarding the nature and content of the program will be appreciated.

The Executive Committee of the Federation will meet on Sunday afternoon, February 11, 1945, at the Palmer House, Chicago, the hour and place to be announced later. Business sessions of the Federation will be held following the dinner Monday, February 12, at the luncheon, and following the afternoon meeting on Tuesday, February 13.

All state boards are urged to select their representative to attend the Annual Congress as early as possible and advise the Secretary's office of same.

Hotel and transportation reservations should be made without delay.

National Physician's Committee Met in New York, November 27

DELEGATES attending a meeting of the National Physicians Committee for the Extension of Medical Care at the Waldorf-Astoria on November 27 were warned of the growing strength of forces favoring a broad Federal program of medical care and were urged to "beat them to the punch."

Most of the speakers referred specifically to what they termed the threat of the Wagner-Murray-Dingell bills.

Dr. Morris Fishbein, editor of the *Journal of the American Medical Association*, predicted that similar proposals soon would be made as election campaign issues.

He said there was a considerable number of high-ranking Federal officials who wanted medical care to be "wholly in the hands of lay governmental directors."

Like the other speakers at the all-day meeting, he recommended that private practitioners quickly join together and, in cooperation with representatives of business and industry, offer group medical care plans to take care of the vast majority of all employed persons below the higher income levels.

As an example of what could be done, he referred to a plan developed in Winnebago County, Illinois, in which an insurance company undertook to provide medical coverage for the county's whole population, assembled in groups of five, for $3.00 monthly a family.

Of the 232 attending the meeting, about 25 per cent were members of the National Physicians Committee, an independent organization supported by doctors, medical organizations, and pharmaceutica manufacturers. The conference was the fifth in a series being conducted in various sections of the country.

According to one speaker, the day of individualism in the medical profession had passed. Dr. Herbert D. Simpson, formerly of the Institute of Economic Research, Northwestern University, said, "In the provision of medical care generally in this country, the choice is between two types of institutionalism—private and public."

Statistics to support the committee's program were presented by Dr. Claude Robinson, president of the Opinion Research Corporation, of Princeton, New Jersey, who reported on a national study of group-insurance programs now in effect and an employer-employee opinion survey.

Surveys conducted by the Opinion Research Corporation, he said, indicated that only 5 per cent of the people are concerned about the cost of ordinary illness but that 63 per cent believed there should be something easier than the conventional system of meeting the cost of unusual or catastrophic surgery or illness.

Throughout the nation, according to Opinion Research, 22 per cent of all employed persons work for firms which cooperate with employees in providing some plan for paying the costs of serious illness, and 3,760,468 employees are covered by some sort of group-insurance plan.

[Continued on page 90]

IS SODA-BICARBONATE NECESSARY IN SALICYLATE THERAPY



Tablets 5 grains bottles of 50 250 1000
Powder 1 oz. bottles

To be effective, the treatment of acute rheumatic fever must maintain a high salicylate level in the blood [1] When massive doses of sodium salicylate are given by mouth, an undesirable side effect—gastric distress—is frequently encountered To relieve this effect, equal amounts of sodium bicarbonate are given Unfortunately, a decided depression of the blood salicylate level results [2]

Gastric distress and its required relief by sodium bicarbonate are avoided when Salysal is given, for Salysal is not soluble in the acid medium of the stomach Furthermore, 100 parts of Salysal provide 124 equiva lent parts of sodium salicylate [3] Thus, smaller doses accomplish the same effect

Literature and sample on request

SALYSAL

FOR A TRULY POWERFUL SALICYLATE THERAPY

RARE CHEMICALS, INC, HARRISON, NEW JERSEY

[Continued from page 88]

One of the questions asked by Opinion Research interviewers was, "If you had to choose between these two kinds of medical and hospital insurance, which would you prefer: (1) a Federal government plan or (2) a plan sponsored by a group of doctors?"

The report was that 37 per cent answered in favor of the "Federal government plan," 43 per cent said they preferred the "doctors' plan," and 20 per cent said they had no choice.

Medical Chiefs of Armies Hold a Congress; Life-Saving by Penicillin Cited in Brussels

AT ST. Pierre Hospital in Brussels, on December 10, British, American, and Canadian consultants and surgeons pooled their knowledge and experience for saving soldiers' lives.

Maj. Gen. E. Philips, Field Marshal Sir Bernard Montgomery's Director of Medical Services, opened a two-day Medical Parliament of Allied battlefield doctors.

Most of the medical men attending—consultant orthopaedic surgeons, neurosurgeons, ophthalmic surgeons, radiologists, venereologists, anesthetists, and experts in plastic surgery, dermatology, psychiatry, transfusion, and shock—were colonels and brigadier and major generals.

Discussion on "Uses of Penicillin" was introduced by Lt. Col. G. A. G. Mitchel, adviser in penicillin and chemotherapy to the Twenty-first Army Group. He said the old adage that prevention was better than cure was the basis of the penicillin policy of the Twenty-First Army Group.

"Owing to American generosity, it has been possible to extend the use and administration of penicillin," Lt. Col. Mitchell stated. "Arrangements were made that penicillin should be given to cases requiring it at most forward surgical levels, and having once been started it should be carried out, no matter where or how the patient went, until such time as he was able to be evacuated or until some surgeon decided it could be terminated."

Lt. Col. Mitchell said that from D-day to October 31, 2,712 "genuine abdominal wound cases" had been treated with penicillin by British and Canadian forward surgeons. Seven hundred and fifty-nine patients died, giving the recovery rate as 72 per cent, or three out of every four soldiers.

While a number of patients might subsequently die, he said the figures for recovery were still "remarkable."

"Penicillin is now part of the routine of before and after operative treatment of abdominal wounds," said Col. Elliott C. Cutler, chief consulting surgeon for the European Theatre of Operations, United States Army.

New Quarantine Branch Established in Epidemiology Division

A QUARANTINE Branch in the Epidemiology Division, Preventive Medicine Service, has been established under the direction of Lt. Col. Phillip T. Knies, Army Quarantine Liaison Officer. Close cooperation will be maintained with the Public Health Service, the Navy, and other Government agencies concerned with quarantine.

The new program, which aims to extend precautionary measures throughout the Army's far-flung routes of travel, is part of the Medical Department's continuing battle against disease, which has given this country the healthiest fighting forces in the world and the healthiest soldiers in any war in history.

Whereas quarantine in the past has depended mainly upon examination of passengers and cargo on arrival, the new Army quarantine policy takes advantage of the Army immunization program, the constant medical supervision of the soldier, and new methods for the control of insects and rodents.

In addition, the Army will continue to cooperate with civil agencies in the enforcement of existing restrictions against the importation of many plants, animals, and curios which might harbor diseases or pests.

Future developments in the field of quarantine, according to the report submitted by the Interdepartmental Quarantine Commission (which included representatives of the Army, Navy, and Public Health Service), will feature greatly improved methods for the international notification of disease, along with improved health certification of travelers. The extensive military program now being developed is expected to go far in demonstrating the value of new methods growing out of wartime medical progress.

Pediatric Foundation Will Widen Scope

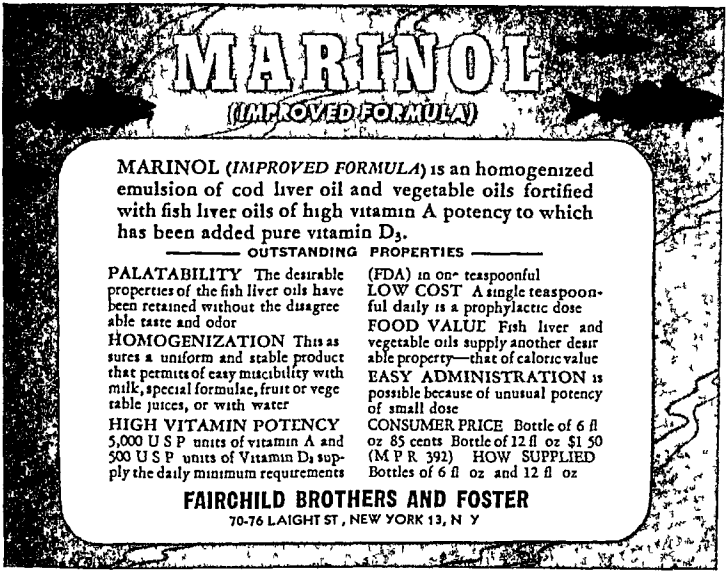
CHARTERED in March, 1944, under the laws of the State of New York, the Pediatric Foundation has issued its first *Bulletin*, which includes a statement of the first two objectives of its flexible program. Those affiliated with the Pediatric Foundation report that, in the future, it will explore other possibilities in which both pediatricians and general-practitioners are interested. At present, the Foundation will center its energies upon these two projects:

To aid in the provision of additional facilities, such as clinics, schools, and camps for the care, treatment, and education of child victims of cerebral palsy, an affliction second only to infantile paralysis as a cause of crippling conditions among children, and

To aid in the provision of additional centers and other facilities for the care, treatment, and special education of child victims of rheumatic fever; and to maintain a demonstration center for the convalescent care of such child sufferers which has been in operation for the past four summers at East Hampton, Long Island.

The new organization is concerned exclusively with fields of service in which needed facilities have not yet been adequately provided. In the future, the Foundation will be interested in launching new projects and in encouraging greater use by physicians and patients of existing activities and facilities of proven worth. It will not duplicate or compete with existing agencies. Nor will it institute or engage in research, which it believes "may be safely left to those individuals and groups who already are pointing out new paths to progress. Excellent research has been done and is being done by highly qualified experts, but too often their conclusions, for want of sufficient facilities, benefit only a few

[Continued on page 92]



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PALATABILITY The desirable properties of the fish liver oils have been retained without the disagreeable taste and odor

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Beverly C Smith, M D, *Secretary*
B A Goodman, M D, *Asst Secretary*

[Continued from page 92]

needs, while preparing for the responsibilities of the postwar period," he continued.

The following Bronx physicians are serving on the Federation committee with Dr. Goodfriend: Eugene Bernstein, Harris Blinder, Murray L. Brandt, A. Brookner, Louis Carp, Jacob Clahr, Morris Cohen, Mark Daniel, Charles L. Engelsher, Reuben Gilbert, Joseph Golomb, Harry Gordon, David Greenberg, David Ide, Charles C. Kastenbaum, Moses H. Krakow, David M. Kurschner, Philip Liebing, Barney Lifshey, Isidor Palais, Harry D. Pasachoff, Herman Paul Posner, S. S. Rosenfeld, Henry Rother, Samuel B. Schecter, Benjamin Sherwin, Max J. Shulman, Irving Smiley, Abraham B. Tamis, Joseph A. V. Tischler, and Samuel Weiskopf.*

Clinton County

The county society held its annual meeting on November 21 at the American Legion Home in Plattsburg. A business meeting at 5:30 P.M. was followed by a dinner at 6:30 P.M. At the business meeting reports of committees were presented and election of officers was held. After dinner Dr. Harold N. Segall, member of the faculty of McGill University, Montreal, Canada, spoke on "Cardiac Disease."

The new officers are: president, Dr. William H. Ladue; vice-president, Dr. Edwin W. Sartwell; secretary-treasurer, Dr. T. Avery Rogers; censors: Dr. Lyman G. Barton, Jr., Dr. S. Mitchell, Dr. Eric D. Pearson; delegate to state Society, Dr. Leo F. Schiff; alternate delegate, Dr. Phillip B. Barton.

Erie County

A stated meeting of the county society and the Buffalo Academy of Medicine was held on November 24 at 9:00 P.M. in the Georgian Room of the Hotel Statler in Buffalo. The guest speaker was Dr. J. G. Fred Hiss, professor of clinical medicine at Syracuse University College of Medicine, whose subject was "Common Errors in Diagnosis of Heart Disease with Special Reference to Rheumatic Heart Disease."

* * *

Mr. Harold P. Yarvis is the county society's new Executive Officer.

Franklin County

The annual meeting of the county society was held November 15, at 3:00 P.M. in the nurses' classroom at the Alice Hyde Hospital, Malone.

Dr. Paul C. Clark, Syracuse, assistant professor of clinical medicine at the Syracuse University College of Medicine, was the guest speaker. His topic was "Penicillin Therapy."

The business meeting followed Dr. Clark's address. Dinner was served at the Elks Club at 6:30 P.M.

The following officers were elected at the annual meeting: president, John N. Hayes; vice-president, Leon Passino; secretary-treasurer, Daisy C. H. Van Dyke.*

Genesee County

At the annual meeting held last December, at the Court House in Batavia, the following officers were elected: president, Paul P. Welsh, Leroy; vice-president, Sidney L. McLouth, Corfu; secretary-treasurer, Peter J. Di Natale, Batavia; delegate, Peter J. Di Natale.

Greater New York

The family of the service man with facial injuries has a responsibility equal to that of the plastic surgeon in the job of reconstruction, Lt. Col. James Barrett Brown, chief of the plastic surgery section, Valley Forge General Hospital, Phoenixville, Pennsylvania, asserted at the annual Greater New York Dental Meeting at the Hotel Pennsylvania on December 7.

Along with plastic reconstruction of the facial injuries must go the mental readjustment of the patient to his changed appearance, and this readjustment, as important as the work of the plastic surgeon, depends largely on the attitude of the family toward the reconstructed service man, Colonel Brown pointed out. If his family, by its behavior toward him, makes him feel that he somehow is not the same man he was when he left, they unwittingly may do him psychic injury that may prevent him from fully readjusting himself as a useful member of society, he declared.

Warning against exaggerating the possibilities of plastic surgery, Colonel Brown said that, while "we are giving the injured the best modern surgery can provide, we cannot duplicate what God has made."*

Monroe County

Dr. Paul A. Lembcke, Rochester, District Number 4 Health Officer, under leave of absence granted by the New York State Department of Health, has been appointed director of study for the New York State Temporary Commission of Medical Care, according to the Rochester *Democrat and Chronicle*. Dr. Lembcke served as state epidemiologist in 1939. Offices of the commission have been opened in the Terminal Building, Rochester.

Nassau County

The following item is quoted from the Hempstead *Review-Star* of November 10:

> Dr. Austin B. Johnson, president of the county medical society, gave high praise to the Nassau County Cancer Committee in a written endorsement made public today.
>
> At a meeting of the executive committee of the medical society, held early this week, it was voted to endorse the program of the cancer group in Nassau County.
>
> The endorsement, signed by Dr. Johnson, stated: "The medical profession of the county, as well as all Nassau residents, owe a debt of gratitude to this pioneer group, which first organized the tumor clinic at Meadowbrook Hospital in 1933, financed it through its early struggles, gave it the first radium, and then utilized the clinic to create the finest opportunity for postgraduate medical study afforded in Nassau County."
>
> The Nassau Cancer Committee is now at the halfway mark in its annual drive to raise $25,000 to carry on the war against cancer in this county. . . .*

New York County

At the one hundred and thirty-ninth annual meeting of the county society held on November 27 the following officers were elected for 1945: president-elect, Roy B. Henline; first vice-president, Wm. Crawford White; second vice-president, Harold B. Davidson; secretary, B. Wallace Hamilton; assistant secretary, Beverly C. Smith; treasurer, Fenwick Beekman; assistant treasurer, John Carroll; censors, Wm. Bayard Long; W. Laurence Whittenmore; chairman, committee on legislation, Horace E. Ayers; chairman, committee on medical economics, Samuel Z. Freedman; chairman, committee on public relations, John DeP. Currence;

[Continued on page 96]



THE majority of the great revolutions of history have aided the growth of light and knowledge and resulted in benefits for humanity throughout the world. Of such are the qualities attributed to 'SULFASUXIDINE' *succinylsulfathiazole*—the therapeutic use of which "has revolutionized surgical procedures performed on the colon."[1]

Widely accepted as a drug of choice for bacteriostasis in intestinal surgery, 'SULFASUXIDINE' *succinylsulfathiazole*, because of its high concentration in the intestinal tract, is an exceptionally effective enteric bacteriostatic agent. Blood concentration of the drug is low, because it is poorly absorbed from the bowel, and toxic reactions are negligible.

One study of 50 patients who received 'SULFASUXIDINE' *succinylsulfathiazole* before and after surgery of the intestinal tract indicated that "the postoperative course is unusually smooth, that serious complications due to infection following fecal contamination are largely eliminated, and that the period of hospitalization and convalescence is definitely shortened."[2]

The administration of 'SULFASUXIDINE' *succinylsulfathiazole* is particularly efficient in the treatment of acute or chronic bacillary dysentery[3] as well as its carriers.[4]

The compound also has proved effective in the treatment of other lesions and acute infections of the colon such as ulcerative colitis.[5]

'SULFASUXIDINE' *succinylsulfathiazole* is supplied in 0.5 Gm. tablets in bottles of 100, 500, and 1,000, as well as in powder form (for oral administration) in ¼-pound and 1-pound bottles. **Sharp & Dohme, Philadelphia 1, Pa.**

1. Surg. Clinics of N. America, Feb., 1944. 2. J.A.M.A., *120*:265, 1942. 3. J. Lab. & Clin. Med., *28*:162, 1942. 4. J.A.M.A., *119*:615, 1942. 5. Med. Clinics of N. America, 27:189, Jan., 1943.

'SULFASUXIDINE'

Succinylsulfathiazole

[Continued from page 94]

chairman, committee on membership, Carl Binger; trustee for five years, Conrad Berens; delegates to the Medical Society of the State of New York to serve for two years: B. Wallace Hamilton, Alfred M. Hellman, Peter Murray; delegate to serve one year: Clarence G. Bandler.

Dr. Kirby Dwight is president for the current year.

• • •

A meeting open to all physicians and medical students was held by the county society on December 18 at 8:15 P.M.

The scientific session featured four addresses: "Reconditioning from the Standpoint of the Disabled Soldier," by Col. Augustus Thorndike, Office of the Surgeon General, Washington, D.C.; "Problems of Rehabilitation as Seen by the Air Service," by Maj. Donald A. Covalt, MC, Executive Officer, Convalescent Training Division, Office of the Air Surgeon General, Headquarters Army Air Forces, Washington, D.C.; "Retraining the Physically Handicapped," by George G. Deaver, M.D., Institute for the Crippled and Disabled, New York City; "Evaluation of Penicillin from Experience In Military Medicine and Surgery, and Its Application to Civilian Practice," by Maj. Karl F. Mech, MC, Army Service Forces, Chief of Penicillin Section, Halloran General Hospital.

• • •

A Board Meeting of the American Medical Women's Association was held in New York City on December 2. The meeting was attended by chairmen and vice-chairmen of various committees from all over the country. Dr. Alice Stone Woolley, of Poughkeepsie, New York, is president of this organization.

The Board was entertained at a banquet given by the Medical Women's Association of New York City at the Hotel Pierre, December 2, at 7:00 P.M. Dr. Vera Dean of the Foreign Policy Association gave the address of the evening.

• • •

The Bureau of Medical Education has announced the establishment of an office in Room 60 of the Academy of Medicine, 2 East 103rd Street, for the reception and guidance of physicians seeking postgraduate medical courses, and particularly to assist veterans of the present war who are seeking medical instruction upon demobilization.

• • •

Bernard S. Coleman, secretary of the tuberculosis committee of the New York Tuberculosis and Health Association and of the Tuberculosis Sanitorium Conference of Metropolitan New York, has been named new director of the Council of the National Tuberculosis Institutions with headquarters at Denver. He will take over his new duties January 1.

• • •

An intensive course in "X-Ray of the Heart and Great Vessels" will be given at the Mount Sinai Hospital, in affiliation with Columbia University. The course will begin January 5, 1945, and will be held on Fridays. Application should be made to the Secretary for Medical Instruction at the Hospital, Fifth Avenue and 100th Street, New York City 29.

• • •

As a further expansion of the movement in the East Harlem Health District to discover unknown cases of tuberculosis and place them under adequate medical care, a mass chest x-ray survey was conducted in December for the tenants of East River Houses, 105th Street and East River Drive. According to Dr. Eugene O. Chimene, health officer of the East Harlem Health Center, every resident of East River Houses over 15 years of age will be given an opportunity to have a chest x-ray on Friday, December 8, from 3 to 6 P.M. and from 7 to 9 P.M. The survey will be conducted with the aid of a mobile x-ray unit set up in the Child Health Station at 412 East 105th Street. Approximately four thousand persons live in the East River Houses, and on the basis of past experience in work of this kind, it is expected that a substantial number will respond.

"In every large community," said Dr. Chimene, "there are usually a few people who have early tuberculosis without ever suspecting it. If these people continue to go without proper treatment, the disease may develop further and become more difficult to cure. What is more, they may risk infecting others who live or work near them. The purpose of the survey on Friday is to discover any 'unknown' cases of tuberculosis which may exist so that they may secure prompt medical treatment. Tuberculosis can be cured when discovered in time, and the surest way to discover it lies in the x-ray."

Dr. Chimene revealed that for several months the East Harlem Health Center has been offering chest x-rays to apparently healthy adults who could not otherwise afford them at the Health Center building, 158 East 115th Street. From the beginning of the year through November 1, a total of 1,672 chest x-rays averaging 152 a month have been made.

Cooperating with the East Harlem Health Center in its chest x-ray program are the Department of Welfare, the Community Service Society, and the Visiting Nurse Service as well as numerous ministers and teachers in the East Harlem Health District. The Center's tuberculosis education program has included numerous motion-picture programs, lectures, discussion-group meetings conducted by Health Department physicians, and the distribution of a large amount of informative literature designed to acquaint the public with the facts about tuberculosis.

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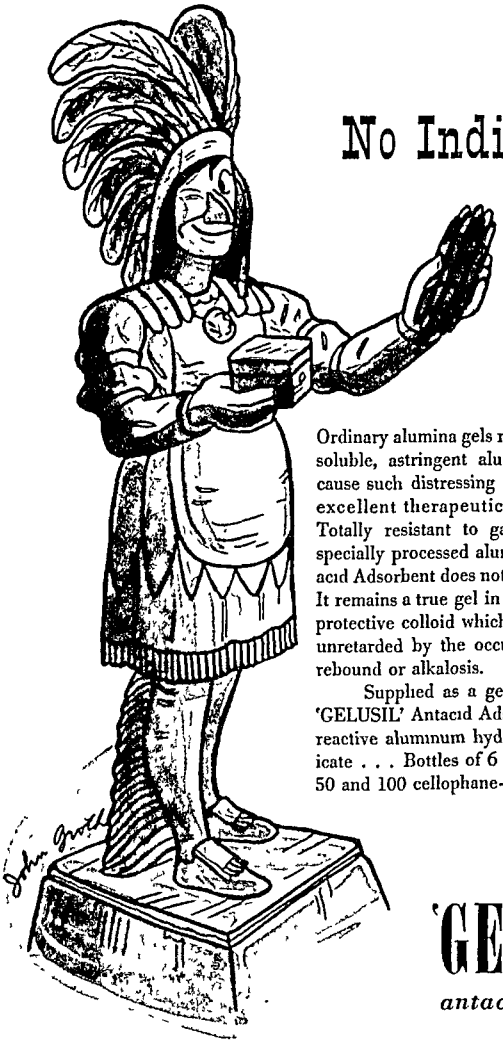
Dr. Bret Ratner addressed the Georgia Pediatric Society at its annual scientific meeting in Atlanta, Georgia, on December 14. His topics were "The Management of the Allergic Child" and "Allergy to the Sulfonamides."

Oneida County

A description of doctors' efforts to obtain penicillin when it was still controlled and limited featured the talk by Dr. Ward J. MacNeal, New York, at the monthly dinner meeting of the Utica Academy of Medicine in the Utica on November 16.

Dr. MacNeal, director of laboratories, New York Post-Graduate Medical School, spoke on "Blood Stream Infections and Endocarditis." As soon as doctors learned of the value of penicillin, they used every possible means, fair or foul, to obtain the drug they believed would save their patients, Dr. MacNeal said.

[Continued on page 98]



No Indian Giver

Ordinary alumina gels react with gastric HCl to form soluble, astringent aluminum chloride which may cause such distressing constipation as to nullify the excellent therapeutic effects of alumina therapy. Totally resistant to gastric hydrochloric acid, the specially processed alumina gel in 'GELUSIL'* Antacid Adsorbent does not "take back" the good it does. It remains a true gel in the stomach . . . a demulcent, protective colloid which maintains faster healing . . . unretarded by the occurrence of constipation, acid rebound or alkalosis.

Supplied as a gel, as well as in tablet form, 'GELUSIL' Antacid Adsorbent provides stable, non-reactive aluminum hydroxide and magnesium trisilicate . . . Bottles of 6 and 12 fluidounces. Boxes of 50 and 100 cellophane-wrapped tablets.

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[Continued from page 96]

Lt. Col. Walter S. Pugh, Army Medical Corps, and a member of the Academy, spoke of his experiences in Africa and Italy.*

Onondaga County

A committee on cancer has been created in the Onondaga Health Association with Dr. O. W. H. Mitchell as chairman. This action follows the report of a special committee on inquiry which reported to the Health Association some weeks ago. Copies of the report may be obtained from the Association office in the Loew building.

The duties of the Committee will be to promote popular education concerning malignant diseases and to encourage the proper development and coordination of a community program for cancer control and prevention.

The other members of the committee include Dr. William E. Ayling, Mrs. Lawrence H. Baldwin, Dr. Donald S. Childs, Miss Cathlena A. Cooper, R.N., Commissioner H. Burton Doust, Dr. J. Howard Ferguson, Dr. C. B. Frawley, Miss Franziska Glienke, R.N., Dr. Lee A. Hadley, Mrs. J. J. Levy, Arthur G. Lyons, Robert C. Morris, Dr. Dwight V. Needham, Mrs. Joseph J. Pietrafesa, Mrs. Robert A. Pond, Dr. Carlton F. Potter, Dr. George S. Reed, Mrs. Maynard H. Salmon, Dr. C. A. Sargent, Dr. Nathan P. Sears, Dean Herman G. Weiskotten, Dr. Frederick S. Wetherell, and Mrs. Arthur J. Volles.

The following officers were elected for 1945 at the annual meeting of the county society held on December 5, 1944: president, Dr. Percival K. Menzies; vice-president, Dr. Frederick S. Wetherell; secretary, Dr. Frederick N. Marty; treasurer, Dr. Irving L. Ershler; censors: Dr. DeWitt Brougham, Dr. Lawrence W. Ehegartner; delegate to State Society, Dr. Leo E. Gibson; alternate delegate, Dr. Donald S. Childs; and delegates to the Fifth District Branch: Dr. William R. Dolan, Dr. William O. Kopel, Dr. Joseph H. Walsh, and Dr. George L. Wright.

Putnam County

The regular meeting of the county society was held at the Gypsy Trail Club, Carmel, on Wednesday, December 6, with Dr. Harry M. Rose, instructor in internal medicine, College of Physicians and Surgeons, as the guest speaker. Dr. Rose's topic was "Progress in Clinical Laboratory Methods from the Point of View of the General Practitioner."

Richmond County

The medical magic of penicillin was portrayed by pictures, x-ray films, and actual cases for members of the county society and the Richmond County Dental Society in the Marine Hospital on November 8. Fifty physicians and dentists attended. The dental group was guest of the medical organization at the session.

A description of research work in medical, surgical, urologic, and dental service was given by four staff members at the hospital: Passed Assistant Surgeon H. I. Russek, Surgeon Michele Arthurras, Senior Surgeon Charles Ferguson, and Senior Dental Surgeon Fritz Jackson.

Dr. D. V. Catalano, president of the medical society, expressed the thanks of the Island physicians and dentists to Dr. P. H. B. Anderson, officer in charge of the hospital, and his staff for the demonstration.*

Rockland County

At the annual meeting of the county society held on December 6, at the Wayside Inn, Stony Point, Dr. Edwyn W. O'Dowd, of Tappan, was elected president. The other officers were elected as follows: vice-president, Dr. Frank J. Schwartz, of Spring Valley; treasurer, Dr. Marjorie R. Hopper, of Nyack; secretary, Dr. Robert L. Yeager, Jr., Summit Park; and chairman of the medical economics committee, Dr. Harold S. Heller, of Spring Valley, the retiring president. State Senator Thomas C. Desmond spoke briefly at the meeting. Chester Hammond, of Pan-American Airways, spoke on aviation and showed a motion picture entitled "Across the Pond." Dr. V. DeSalvo played the piano and William Rider sang.

Saratoga County

Officers for 1945 were elected at the 1944 annual meeting of the county society. The officers are as follows: president, Dr. Frederick G. Eaton, Saratoga Springs; vice-president, Dr. Frank A. Mastrianni, Mechanicville; treasurer, Dr. Joseph M. Lebowich, Saratoga Springs; secretary, Dr. Malcolm J. [illegible] Springs.

Schenectady County

The annual meeting of the county society was held at the Hotel Van Curler in Schenectady on December 14. A business meeting took place at 5:30 P.M. at which officers and candidates were elected. Following dinner at 7:00 P.M. Bruce Thomas, war correspondent, spoke and a technicolor motion picture entitled "War Wounds" was shown.

Steuben County

The annual meeting of the county society was held at Bath, on November 9. The following officers were elected to serve the society for the year 1945: president, Dr. Stacy P. Koenemann, Avoca; vice-president, Dr. James Yanick, Hornell; secretary-treasurer, Dr. Rudolph J. Shafer, Corning; delegate, Dr. Leon M. Kysor, Hornell; alternate delegate, Dr. Herbert B. Smith, Corning; censors elected for three years: Dr. Henry E. Elwood, Jr., Corning, and Dr. Ardeen E. Richmond, Wayland.

The society went on record as opposed to the 5 per cent reduction of bills in compensation cases, and they were also opposed to the fee allowed for hernias. It was felt that the assistance fee should be paid in addition to the regular fee of $75.

The scientific program was arranged through the Council Committee on Public Health and Education of the Medical Society of the State of New York and the New York State Department of Health. Dr. William F. Lipp, of Buffalo, spoke on the treatment of jaundice.

Tomkins County

The Central New York Medical Plan, offering treatment to industrial employees and their families in much the same way hospitalization is extended by the Blue Cross, was outlined at the county society meeting in Memorial Hospital, Ithaca, on November 20.

Sponsored by members of the Onondaga County Medical Society and explained by them at the meeting, the medical plan will be extended throughout the Central New York area from headquarters in Syracuse when organization details are completed.

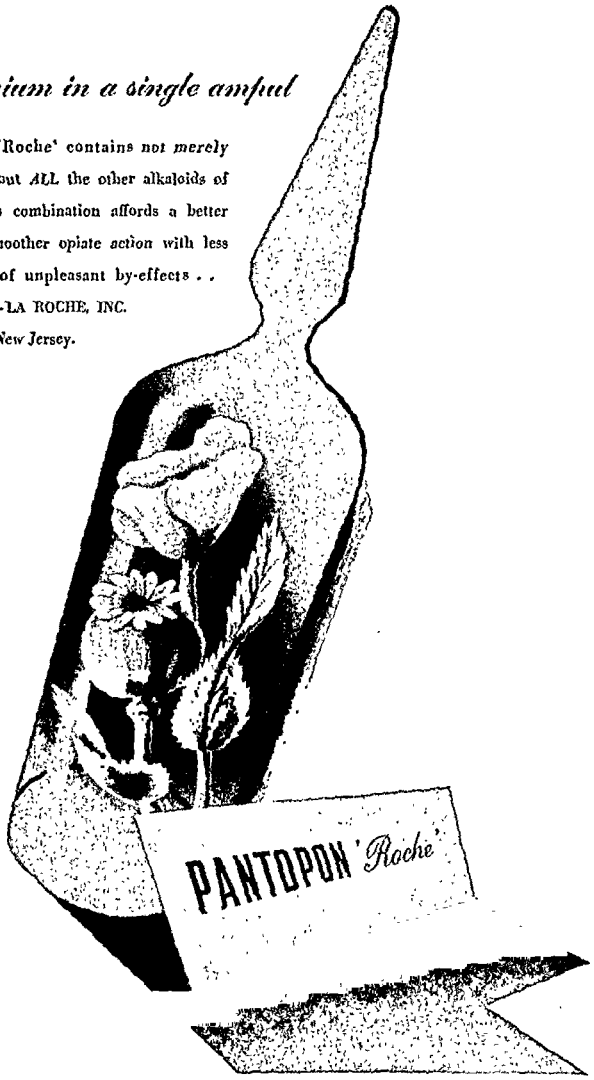
[Continued on page 100]

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[Continued from page 98]

The plan, at first, will be limited to industrial workers with families, it was stated.

Local doctors were asked to join in the movement as underwriting members of the corporation.*

Warren County

According to the *Glens Falls Times*, the following officers were elected for 1945 at the annual meeting of the county society: president, Dr. Burke Diefendorf, Glens Falls; vice-president, Dr. Patrick H. Huntington, Warrensburg; secretary-treasurer, Dr. Lester C. Huested, Glens Falls.

Westchester County

Dr. Laurance D. Redway, Ossining, was elected president of the county society at the one hundred and forty-seventh annual meeting on November 21 at the New York Hospital, Westchester Division, where guest speakers stressed the importance of voluntary medical insurance for all people of the lower income groups.

Guest speakers included Dr. Edward R. Cunniffe, New York City, president-elect of the Medical Society of the State of New York, and Dr. Louis H. Bauer, Hempstead, Speaker of the House of Delegates of the State Society and trustee of the American Medical Association. Local physicians participating in the discussion included Dr. George C. Adie, New Rochelle; Dr. Robert B. Archibald, Bedford Hills; Dr. James F. Parsons, Dobbs Ferry, and Dr. Ralph T. B. Todd, Tarrytown.

All speakers agreed that establishment of a prepayment plan of medical care which would be financially sound, would permit free choice of a physician by the patient, and would provide a high quality of care is the most important task facing the medical profession today.

Dr. Merwin E. Marsland, Mamaroneck, retiring president, made recommendations concerning the business and educational activities of the society and Dr. Redway, incoming president, reviewed the society's history, pointing out that its first meeting in White Plains in 1797 was only twenty-two years after the Battle of Lexington.

Other officers elected were Dr. Isadore Zadek, Mount Vernon, president-elect; Dr. Archibald, vice-president; Dr. Henry E. McGarvey, Bronxville, secretary, Dr. W. Alex Newlands, Tarrytown, treasurer; censor, Dr. Maximin D. Touart, Bronxville; special committee on war participation, Dr. McGarvey; subchairman on public health committee, Dr. Touart; legislative committee chairman, Dr. Waring Willis, Bronxville; membership committee, Dr. Thomas E. Uniker, Bronxville; and public relations, Dr. Henry W. Kaessler, Bronxville.

Deaths of New York State Physicians

Name	Age	Medical School	Date of Death	Residence
Edward S. Beck	82	Buffalo	November 13	Oswego
Lillian M. Burlingame	73	N.Y.M.C. & H. Wom.	December 4	Brooklyn
Hughes Dayton	71	P. & S., N.Y.	December 3	Irvington
Samuel Gellert	63	P. & S., N.Y.	November 2	Manhattan
Charles L. Gibson	80	Harvard	November 24	Manhattan
August Hoerle	84	P. & S., N.Y.	August 6	Brooklyn
Maximilian Horn	65	Vienna	November 25	Scarsdale
Harold E. Hoyt	66	Albany	October 12	Astoria
Paul H. Lowry	47	Syracuse	November 5	Syracuse
Paul H. Mahany	44	Buffalo	November 11	Albion
Saul D. Nevard	52	N.Y. Hom.	August 1	Manhattan
P. Misick Ostrander	92	Hom. Cleveland	November 26	Nunda
Nathan S. Rawdin	66	Baltimore	October 31	Bronx
Isadore M. Silverman	33	Creighton	August 26	Sunnyside
Francis J. Talbot	58	Balt. Med.	November 11	Niagara Falls
Palmer Townsend	78	L.I.C. Hosp.	November 6	Brooklyn
Samuel B. Weiner	33	L.I.C. Med.	November 22	Bronx

AMERICAN LIBERTY AND THE WAGNER-MURRAY-DINGELL BILL

No charitably minded citizens can overlook the fact that there are many provisions in the Wagner-Murray-Dingell Bill which incline toward a new order.

But the naiveté and novelty of the bill, the cadginess and the codlingness of it, the "I am my brother's keeper" gospel of it, are so acceptable, not just to the lame and the halt but to the tame and the dolt, that opposition to any portion of it and on any score is doubly difficult. Therefore, such opposition must be doubly impelling, incisive, intelligent, and invincible. As such, it must reach legislators and representatives by way of the people who elect them, a people who will have to be convinced by sound arguments that this "cradle to the grave" program is not compatible with our idea of American liberty.—*Ivor Griffith, President, American Pharmaceutical Ass'n., in Med. World, Sept., 1944*

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Cardiovascular Diseases (*April 2-June 20, 1945*)

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Hospital News

College of Surgeons Announces 1944 Approved List of Hospitals

THE American College of Surgeons announces that 3,152 hospitals in the United States and Canada are included in the 1944 Approved List. The list is published in the annual Approval Number of the College *Bulletin* issued December 31.

A total of 3,911 hospitals were included in the 1944 survey and the approved hospitals represent 80.6 per cent.

The first annual survey, made in 1918, included 692 hospitals of 100 beds or over, of which only 89, or 12.8 per cent, merited approval. Hospitals of 25 beds and over are covered in the current surveys.

A total of 2,342 hospitals of 100 beds and over were on the 1944 survey list, and 2,182, or 93.1 per cent, were approved. A total of 1,119 hospitals of 50- to 99-bed capacity were under survey of which 789, or 70.3 per cent, were approved. A total of 450 hospitals of 25- to 49-bed capacity were under survey of which 181, or 40.2 per cent, were approved.

On December 31 of each year the ratings of hospitals under survey by the American College of Surgeons automatically terminate. The status of every hospital based upon all data collected from the current survey is reconsidered each year.

"When the Lid's Off"

THE removal of priorities on many kinds of civilian goods as soon as Germany has been defeated may create real problems for hospitals. There won't be enough goods to go around. Under present priority controls, hospitals get first break. Without priority they may be hard put to obtain needed supplies and equipment. While no one wants to continue the priority system one minute longer than necessary for the national safety and welfare, the continued operation of hospitals is so important an element in national welfare that earnest consideration of this problem should be given by the War Production Board.—*The Modern Hospital, Nov., 1944*

Hospital Association Elects Head

DR. PETER D. WARD, St. Paul, was chosen president-elect of the American Hospital Association at its annual meeting in Cleveland in October, and Dr. Donald C. Smelzer, Philadelphia, was inducted into the presidency.

The vice-presidents who were elected at the meeting are Harold A. Grimm, Millard Fillmore Hospital, Buffalo; Rev. George Lewis Smith, Diocese of Charleston, Aiken, South Carolina; and A. J. MacMaster, R.N., Moncton Hospital, Moncton, New Brunswick, Canada. Other officers include Dr. Harley A. Haynes, Ann Arbor, Michigan, treasurer, and Mr. George Bugbee, Chicago, executive secretary.

Improvements

The New York Hospital announced on December 4 that construction had begun on an expansion program which will increase the number of beds at the hospital from 977 to 1,138 by the middle of next summer. Material and equipment priorities were granted by the War Production Board.

The improvements will provide 161 beds in the medical, surgical, and children's departments, as well as enlarged x-ray and other departments and laboratories for research in penicillin, the sulfa drugs, and treatment of combat injuries.

The building program will cost about $600,000, but will not require the construction of any new unit. A formerly unused floor will be developed for use and other sections of the building will be altered and rearranged. The program will be completed without interrupting any of the hospital's services.*

• • •

An iron lung credited with saving at least one life was presented on December 9 to the Jewish Memorial Hospital in New York City by Liberty Post, No. 22, of the American Legion. The gift was accepted on behalf of the institution by its president, Milton M. Goldsmith.*

• • •

X-ray equipment valued at more than $10,000 and used at the Infantry Armory in Utica by the armed forces induction station's mobile team, which recently completed three years of activity, will be sent to Rhoads Hospital.*

At the Helm

Appointment of Dr. Francis D. Shaw as director of Dannemora State Hospital, Dannemora, effective December 1, has been announced by State Correction Commissioner John A. Lyons.

Dr. Shaw, now associate director at Matteawan State Hospital, in Beacon, succeeds Dr. Blakely R. Webster, who is retiring after thirty-two years with the department.*

• • •

Lt. Comdr. Thomas Henry Argue, former Corning physician, who recently returned after thirteen months' service in Puerto Rico, has been appointed chief of surgery for the Naval Hospital at Marine Corps base, Camp Lejeune, North Carolina, according to an official release. He left November 12 for his new assignment.

Lt. Comdr. Argue is serving his third enlistment

[Continued on page 104]

* Asterick indicates that item is from a local newspaper.

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with the armed forces. He interrupted his studies at Harvard University from September to November in 1918 to join the Army, and from 1926 to 1936 he held a lieutenancy in the Army Reserve. He received the doctor of medicine degree at Harvard in 1924.*

• • •

Formal announcement of the recent appointment of Dr. William Henry Shehadi as chief of the x-ray department of Mount Vernon Hospital, succeeding the late Dr. Ludwig B. Goldhorn, has been made by Arthur L. Zerbey, president of the board of managers.*

• • •

Dr. Francis B. Trudeau, of Saranac Lake, has been elected president of the board of trustees of Trudeau Sanatorium.

Dr. Trudeau succeeds Dr. James Alexander Miller, of New York City, who has served as president of the Board for the past seventeen years. Dr. Miller will remain a trustee.

Dr. Fred H. Heise of Trudeau Sanatorium was elected chairman of the medical board. He will fill the vacancy left by Dr. Trudeau.

Other officers on the committee named to office were Dr. William P. Thompson, of New York City, secretary, and Frederick Sheffield, of New York City, treasurer.

Additional Saranac Lake physicians who will serve again in their respective offices are Dr. Edward R. Baldwin as chairman of the executive committee and Dr. L. U. Gardner as director of Trudeau Foundation and the Trudeau School.

Dr. Winfield O. Kelley, of Saranac Lake, was elected as consulting surgeon for the Sanatorium.*

• • •

Dr. A. P. Merrill, medical director of St. Luke's Hospital, Chicago, will become superintendent of the Home for Incurables, 2751 Grand Concourse, Bronx, on January 1. This appointment, to succeed the late Dr. Moody S. Arnold, was announced today by Ernest Iselin, president of the institution.

Dr. Merrill is a graduate of Leland Stanford University where he also got his degree in medicine. He served his internship at the San Francisco County Hospital and his surgical residency at Stanford University Hospitals. After a few years of private practice he became assistant superintendent of San Francisco County Hospital from which post he went to St. Luke's in Chicago.

Home for Incurables was founded in 1866 and has been a member of the United Hospital Fund since 1880.

Newsy Notes

The twenty-one buildings of the United States Veterans Hospital in Kingsbridge Road, the Bronx, were inspected on December 13 by a group of veterans' representatives and newspaper reporters, preparatory to the opening of a campaign to raise $10,000,000 by the Disabled American Veterans.

The funds raised in the campaign will be used over a ten-year period to train special service officers and supervise the 504 discharge centers in the United States, and to pay the salaries of the men. Those selected for the training course must be wounded veterans. They will receive six months' instruction in the American University at Washington, then will have six months' field work and a term of administrative work before being qualified. They will be certified by the Veterans Administration to represent the claims of disabled service men before various boards.*

• • •

Assistance and facilities of Vassar Hospital have been placed at the disposal of the Poughkeepsie Common Council for the purpose of providing communicable disease hospital accommodations in Duchess County.

The special committee of the council was designated to work with the Dutchess County Medical society in furtherance of the effort of the society to provide the special hospital facilities.*

• • •

Columbia-Presbyterian Medical Center recently announced that the hospital will institute a pension plan that will not require any contribution from employees. It becomes effective January 1. The plan replaces an optional plan begun in 1931 to which employees contributed if they so desired. The new plan will automatically cover employees who have reached the age of 30 and completed two years of employment at the hospital. It provides for retirement at 65 on an annual pension amounting to one per cent of the total compensation received during the period, with a minimum retirement annuity of $40 a month. A group life insurance plan on a contributory basis will also be offered.

• • •

A gift of $50,000 in Government bonds was recently made to the United Hospital Fund of Greater New York by Flora R. and Isador M. Stettenheim as a memorial to Ivan M. Stettenheim.

• • •

New York area hospitals have made an appeal for old radios, and the United Electrical Radio and Machine Workers of America, CIO, 100 W. 42nd Street, New York City, are collecting and repairing radios for the hospitals. They are delivered to the hospitals in good condition a few days after they are received by the Union. Pupils in the War Industries Training Program are doing much of the actual repair work.

• • •

Nine days before its fifty-seventh anniversary, Memorial Hospital for the Treatment of Cancer and Allied Diseases admitted its 100,000th patient. Public education about cancer is progressing well, George F. Holmes, hospital superintendent for the last thirty years, said in commenting upon the institution's birthday, and cancer now awaits further research and the training of more doctors.

• • •

First steps were taken on November 21 to carry

[Continued on page 106]

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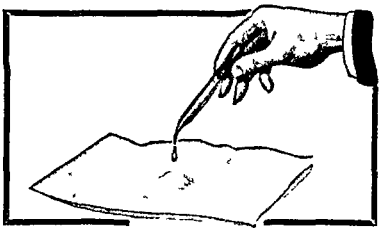
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[Continued from page 104]

out Governor Dewey's recommendation for post-war improvement and expansion of facilities at State mental hygiene institutions which he had described as "overcrowded by 20 per cent."

The Post-War Public Works Planning Commission announced approval of eighty-three projects at twenty-four institutions involving construction work estimated to cost $52,474,643. Plans for the expenditure of $9,163,893 are completed or begun and will be started for the remainder immediately, the commission said.*

• • •

The diamond jubilee of the founding of St. Joseph's Hospital, Syracuse, the first hospital in Central New York, was recently commemorated.*

• • •

Castle Point Veterans' hospital has just celebrated the twentieth anniversary of its dedication. The hospital, formally dedicated in 1924, has since become an outstanding federally maintained tuberculosis center in the East.*

• • •

Increased benefits to the 1,700,000 members of the Associated Hospital Service of New York were announced on December 1 by Louis H. Pink, President.

Beginning on December 1 subscribers will be entitled to receive hospital care during a period of 21 days for each separate illness they may suffer instead of 21 days for the entire year. The organization's policy of granting benefits for 90 extra days at one-half the regular hospital rates will remain in effect for each period of hospitalization. In addition a cash allowance of $7.25 will be paid to subscribers who may need operating room service at the hospital but who do not become bed patients.

"These benefits have been granted," said Mr. Pink, "in keeping with our basic policy of sharing with members and their families all surpluses beyond those necessary for sound operation. They will be continued as long as our financial condition permits us to do so. Whenever our experience with added benefits proves favorable over a reasonable period of time, they are included in the contracts of our subscribers."

AMERICAN REVIEW OF SOVIET MEDICINE BEGINS SECOND YEAR

The full story of how surgeons in the USSR are reconstructing male genital organs injured or destroyed in the war has been revealed here for the first time by the Soviet doctor who did the pioneer work in this surgical field.

The doctor is A. P. Frumkin, professor of surgery at the Urologic Division of the Botkin Hospital in Moscow. Writing in a recent issue of *The American Review of Soviet Medicine*, bimonthly publication of the American-Soviet Medical Society, Frumkin declares that "a complete loss of the external genitalia is a rather frequent occurrence in the present war," and that "this type of injury is extremely serious, since it precipitates the patient into a state of severe depression."

This issue of the magazine marks the beginning of its second year of publication. Associate editors who have just been added to the staff are Dr. Gregory Zilboorg, well-known psychiatrist, and Dr. Jacob Heiman, clinician. Dr. Henry E. Sigerist, editor of the journal and director of the Institute of the History of Medicine at Johns Hopkins University, is currently in India, at the official request of the British and Indian governments, where he is making a study of health conditions. Dr. Sigerist is considered the foremost authority on public health in this country. He is to return next month.

The same issue of *The American Review of Soviet Medicine* also features a short review of the work of the Rehabilitation Clinic established in the Neurologic Division of the All-Union Institute of Experimental Medicine in Moscow. The author, A. R. Luria, a professor at the clinic, writes that "experience with physical therapy in wartime has changed many old concepts still prevalent."

Vladimir P. Filatov, Soviet scientist, describes in the journal how the Russians obtain and prepare tissue from human cadavers, and how they are preparing the way toward the use of eye banks and tissue banks as widespread as blood banks.

COMMITTEE FOR MENTAL HYGIENE PUBLISHES DIRECTORY OF PSYCHIATRIC CLINICS

The National Committee for Mental Hygiene has announced the publication of a new directory of psychiatric clinics and related facilities in the United States, with special reference to rehabilitation needs of veterans.

This directory is broader in scope than any previous ones, according to the Committee. It is primarily for medical officers and other professional staff in the armed forces and the American Red Cross who advise men about to be discharged regarding sources for psychiatric treatment and related services. It is also for the use of professional workers in civilian agencies in advising clients or referring persons to agencies in any part of the country. The directory lists state-wide facilities, such as state hospitals and other institutions for the mentally handicapped, state departments dealing with clinics, state societies for mental hygiene, Veterans Administration neuropsychiatric hospitals, and Veterans Administration regional offices; community psychiatric clinics and other resources, listed by state and city; family welfare societies; councils of social agencies; American Red Cross Home Service agencies, etc.

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Columbia County

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Erie County

Woeppel, Charles J. (Lt.)

Kings County

Lewis, Ira (Surgeon (R) USPHS)
Ludwig, Nathan B. (Capt.)
Mazzola, Nunzio J. (Lt.)
Rosenbusch, Justin (Lt.)
Schwartz, Robert (Maj.)

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Schneider, Louis

New York County

Abrahamson, Robert H. (Lt. Comdr.)
Bar, Eugene (Capt.)
Conrad, Agnes (Lt. Comdr.)

Queens County

Danos, Bela
Fuchs, John H.

Suffolk County

Biel, Paul (Lt.)
Case, Wickham F. (Capt.)

* This list is the twenty-eighth supplement to the Honor Roll published in the December 15, 1942, issue. Other supplements appeared in the January 1, January 15, February 15, March 1, March 15, April 15, June 1, July 1, August 1, September 1, October 15, November 15, December 15, 1943, January 15, February 1, February 15, March 1, May 1, May 15, June 1, July 1, July 15, August 1, September 1, October 1, November 1, and December 1, 1944, issues.—*Editor*

1945 ANNUAL MEETING

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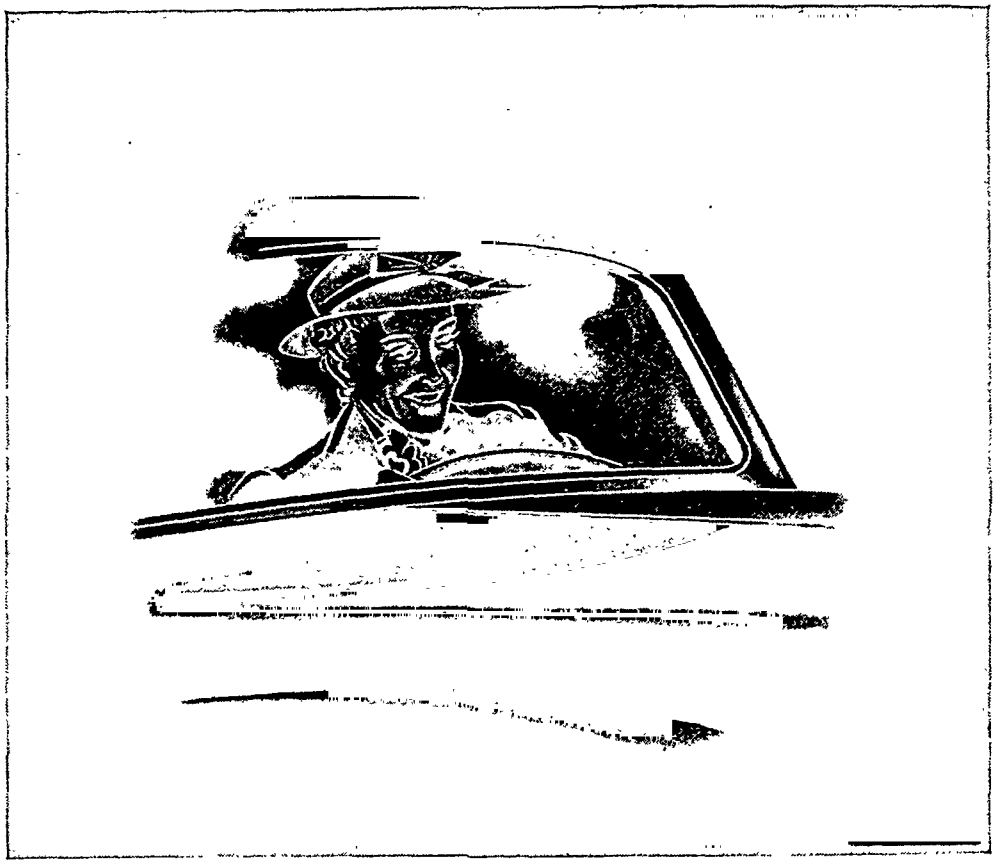
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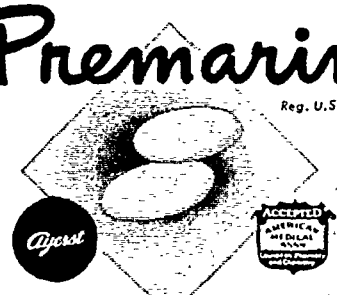
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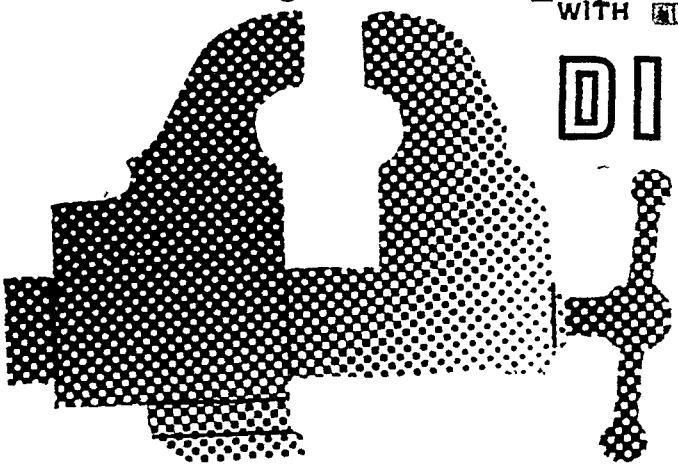
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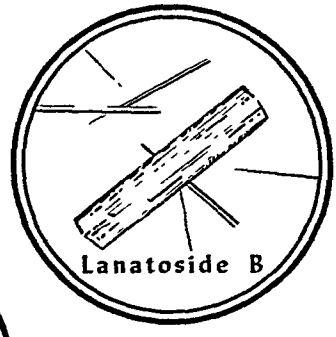
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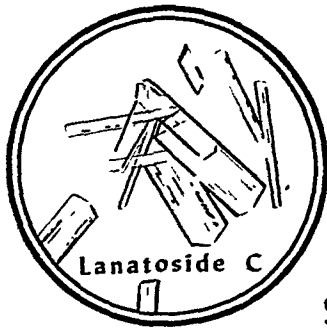
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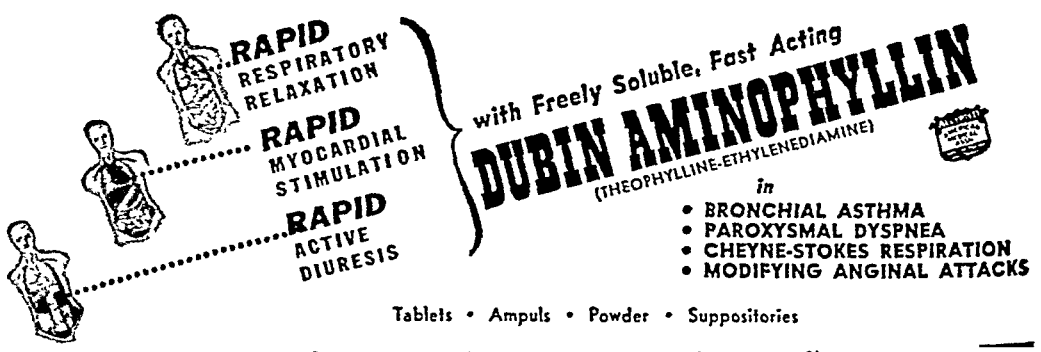
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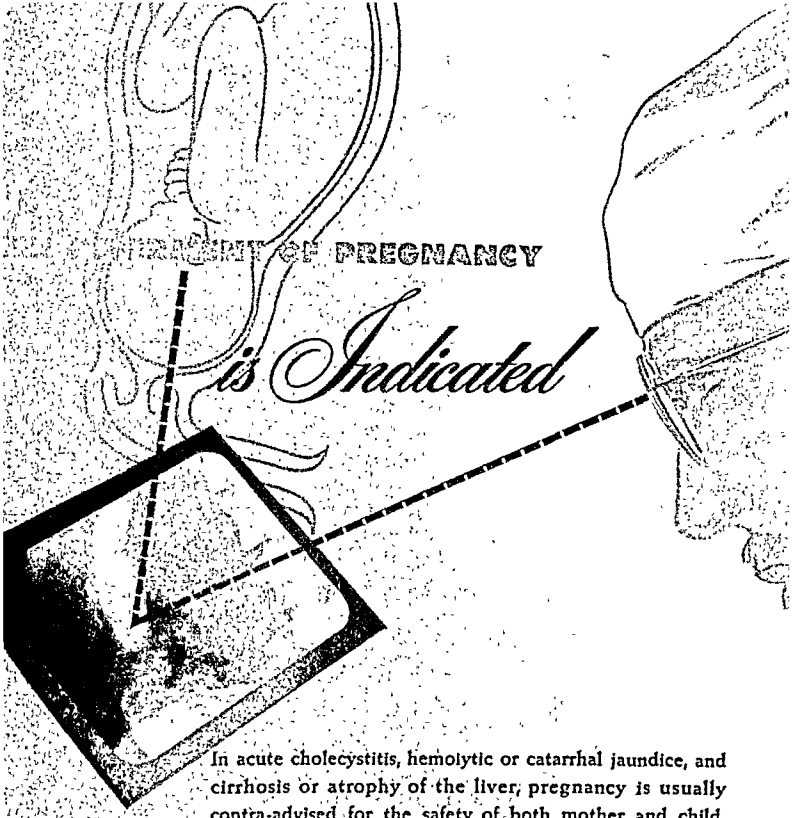
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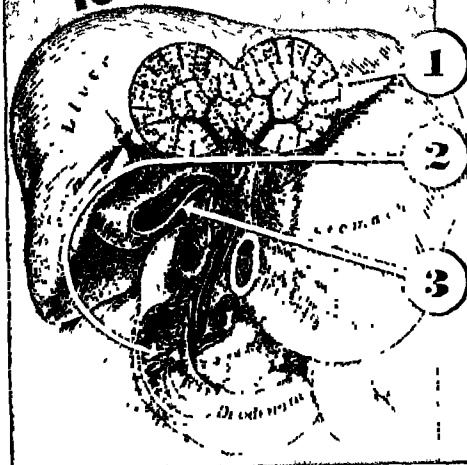
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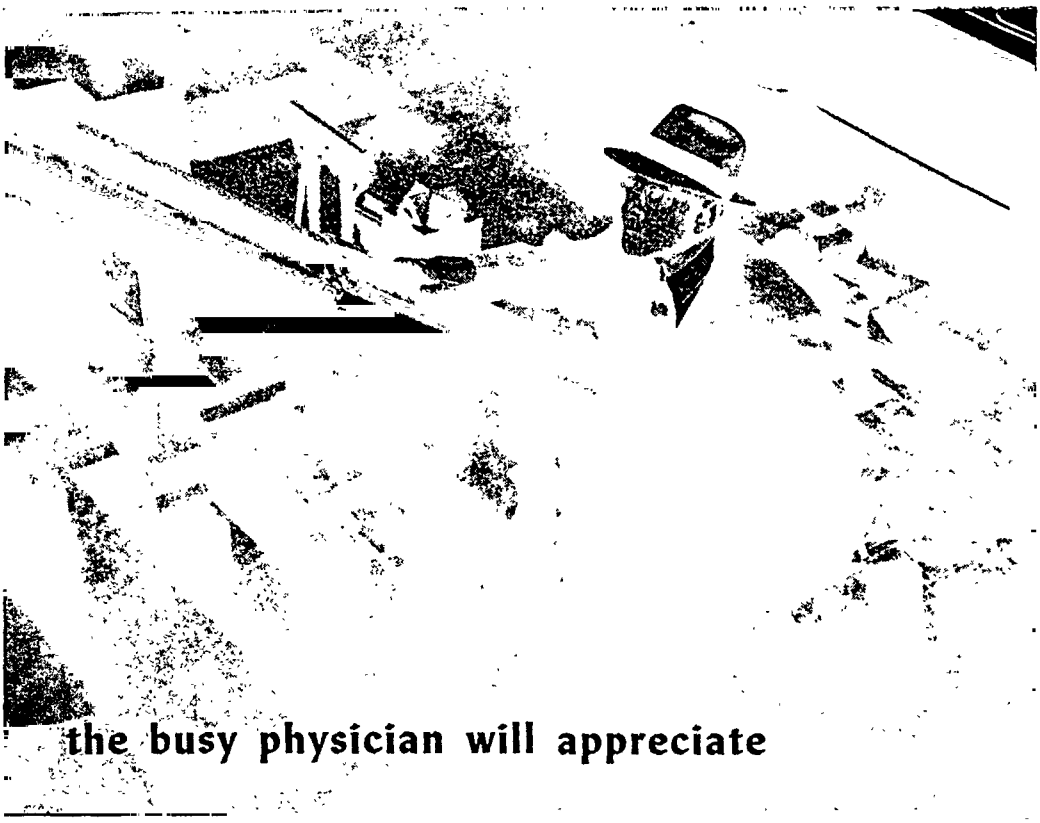
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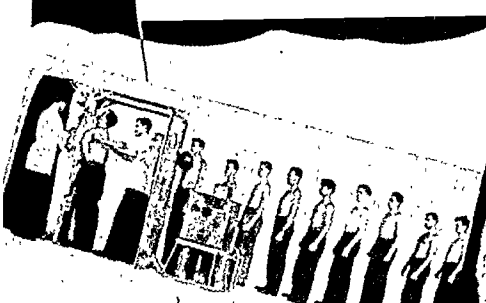
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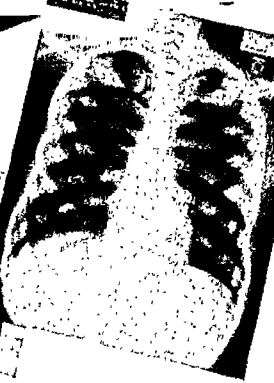
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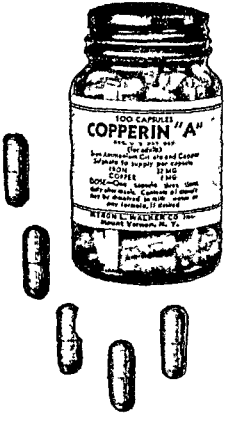
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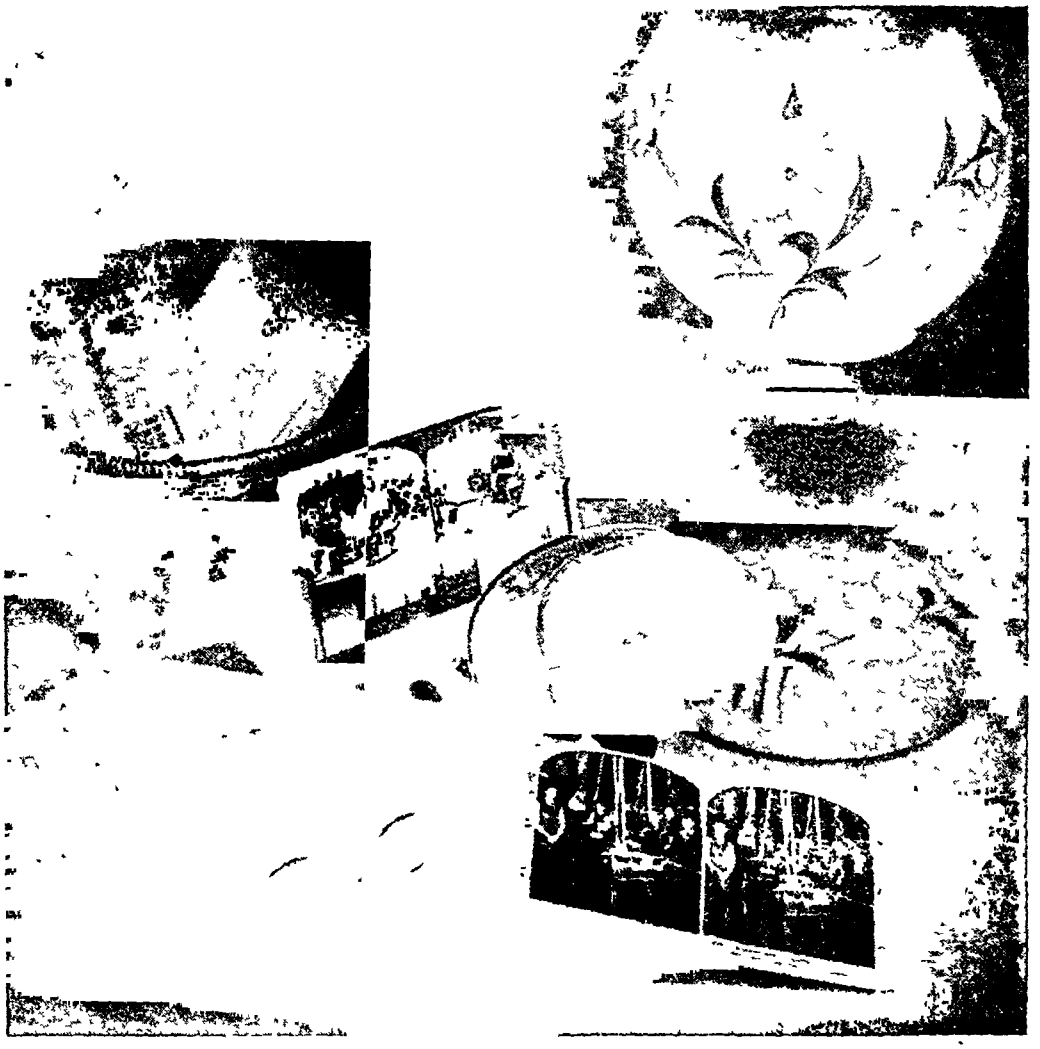
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(1) West J Surg Obst. & Gyn., 51 150 1943 (2) Cl n Med. & Surg., 46 327 1939 (3) Am. J Obst. & Gyn. 46 259 1943



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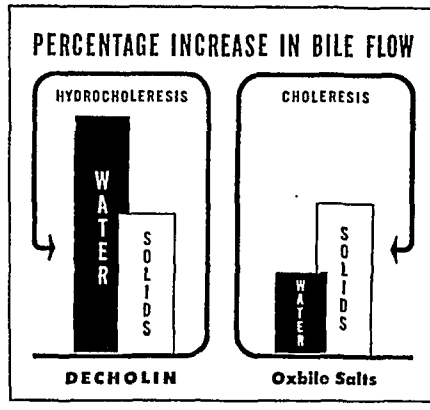
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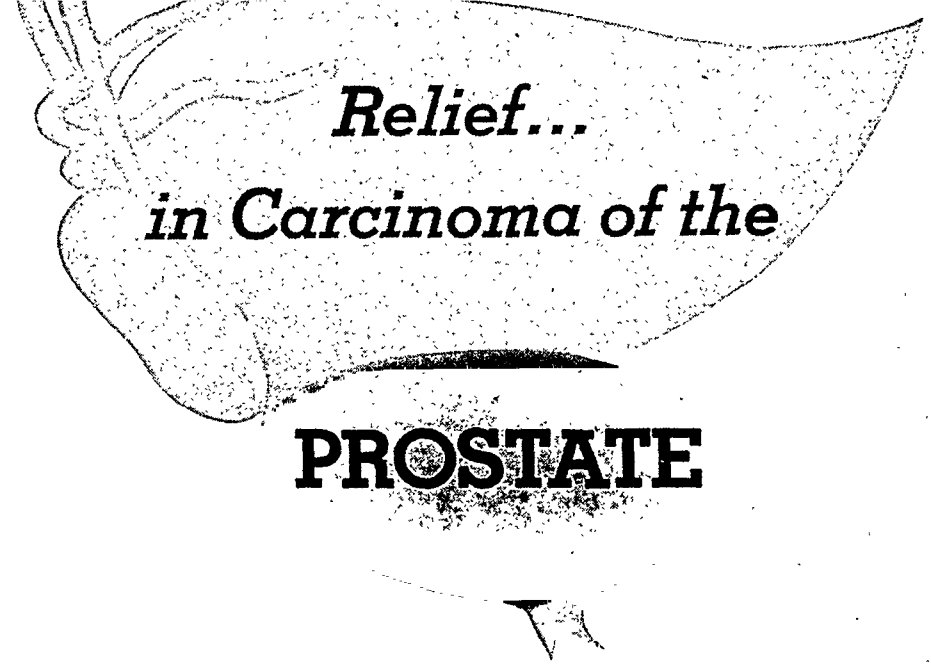
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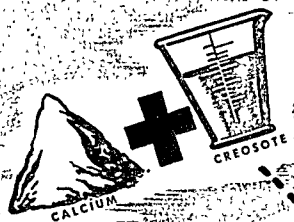
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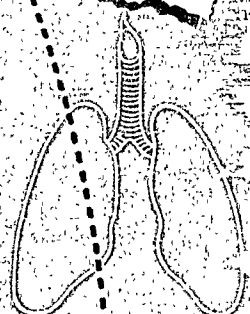


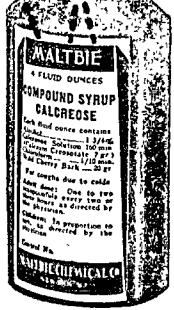
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[1]Fellows, E. J.: J. Pharm. & Exper Ther., 60:178, 183, 1937.
[2]Stevens, M. E. et al: Canad Med. Assn. J., 48 124, 1943

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7. Long, P. H.: J. A. M. A., *121*:303-307 (Jan. 30) 1943.





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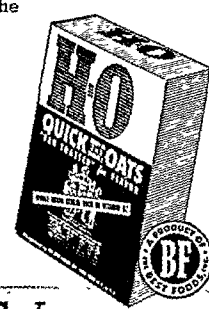
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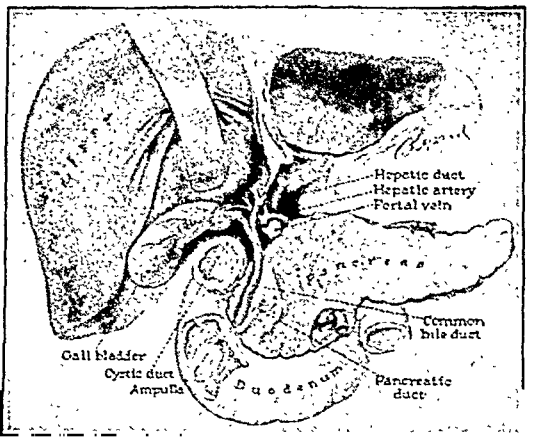
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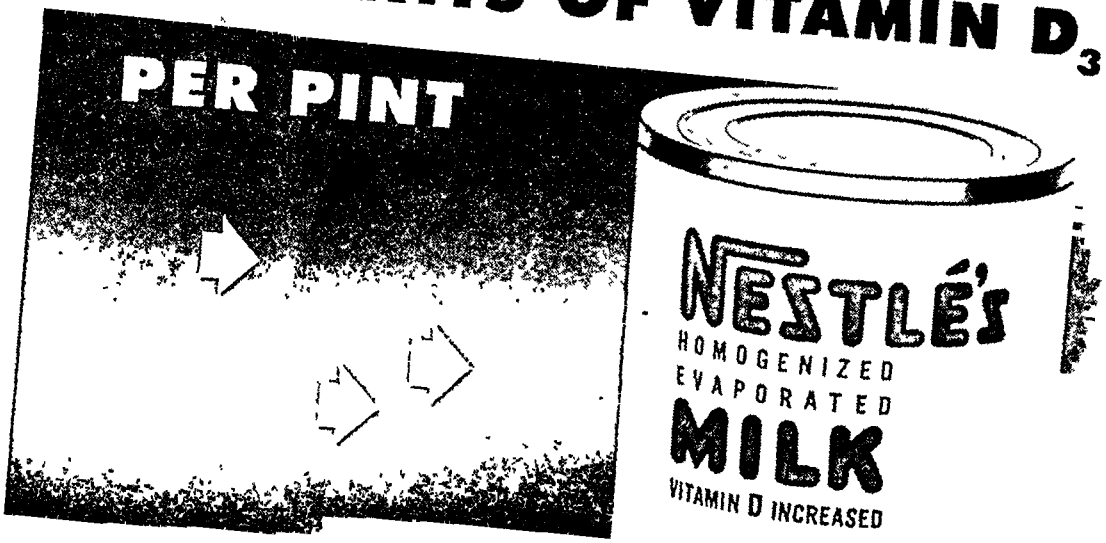
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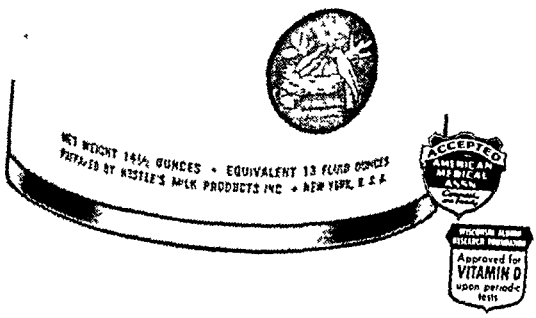
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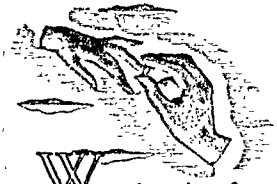
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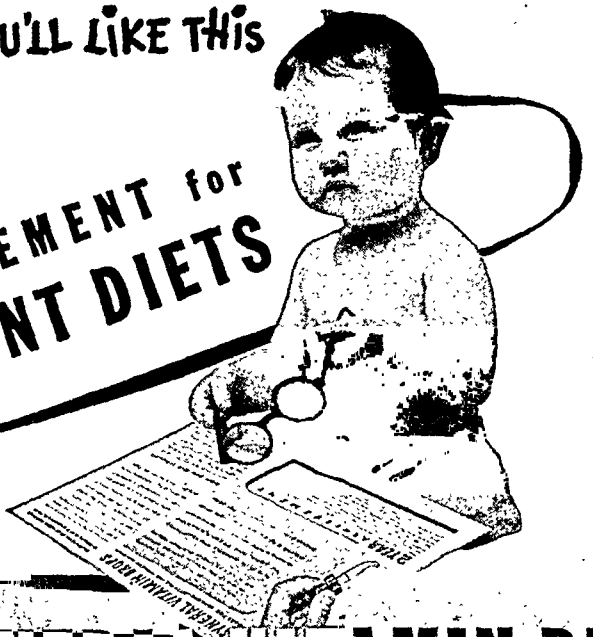
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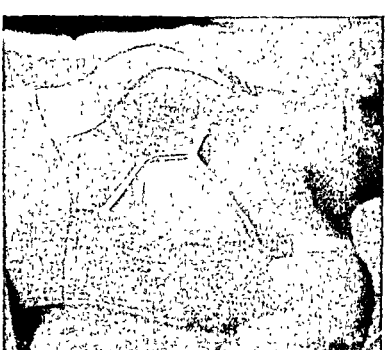
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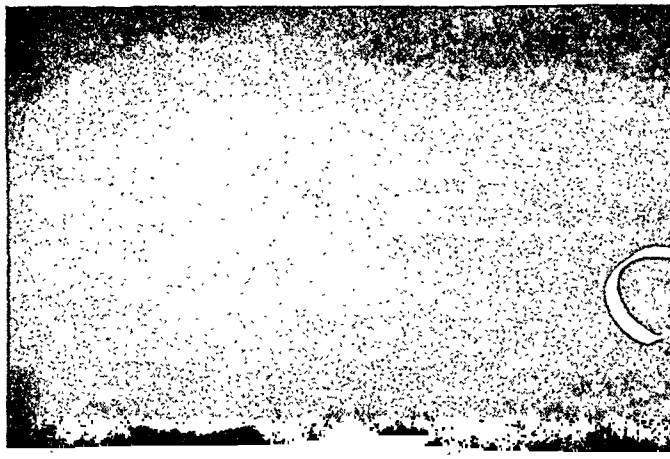
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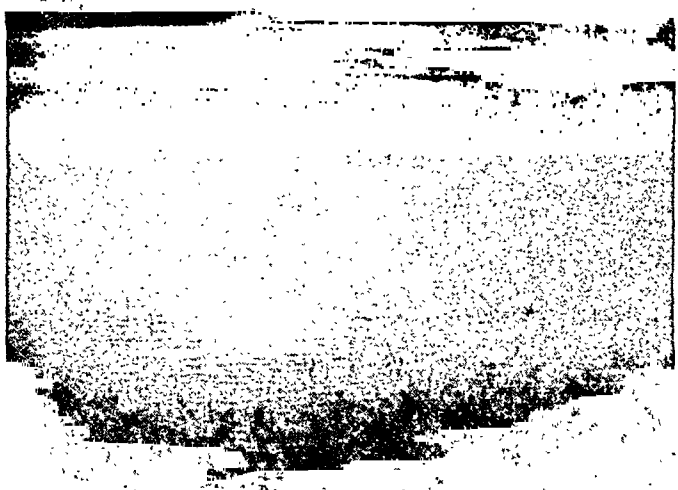
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VOLUME 45 JANUARY 15, 1945 NUMBER 2

Editorial

Nurses for the Armed Forces

Procurement of nurses for the armed forces in World War II has been difficult On December 19, 1944, Walter Lippmann, in the *Herald Tribune*, says of the present nursing shortage

"The last thing our people will put up with is that sick and wounded American soldiers should suffer because the Army cannot find enough women to nurse them Yet I am reporting only the stark truth, which is well known to the Army and to the leaders of the medical profession, when I say that in military hospitals at home and abroad our men are not receiving the nursing care they must have, and that with casualties increasing in number and in seriousness, this will mean for many of the men brought in from the battlefields that their recovery is delayed, and even jeopardized

"No one will question this statement So great is the shortage of women who are volunteering to nurse the sick and wounded that the Army has had twice to lower its own standard of nursing care In 1941 the standard called for 120 nurses and 500 enlisted men in each general military hospital of 1,000 beds

"By 1942 the Army had had to reduce the number of nurses to 105 Today in 1944, when our casualties are mounting, the Army has been driven to reduce its theoretical standard to 83 nurses and 450 enlisted men

"Instead of one nurse to eight beds the Army has had to come down to asking (though it is not getting) one nurse to twelve beds That this is a low standard is obvious when we realize that in civilian hospitals a ratio of one nurse to four or five patients is considered just barely sufficient"

This situation is of interest to physicians Most of us have believed, because we have been told on what we considered good authority, that nurses would be increasingly available to the armed services as a result of the nurse procurement program and the cadet nurse training schedule

As of November 15, 1944, 34,000 nurses have been classified in New York State [1] As of September 1, 1944, 12,554 student nurses are enrolled in New York State schools of nursing this year as compared with 8,826 in 1941.

In the June 1, 1944, JOURNAL we reviewed the nurse procurement program for the first

half of 1944.[2] At that time we were informed that the "State's reserve of 5,206 'available' nurses should be ample to provide the 1,328 necessary to complete the quota for the first half year without unduly depleting nursing service for the civilian hospitals."

We are further informed[1] that "New York State is asked to supply 827 nurses to the Army and Navy by December 31, 1944. That need is immediate and urgent."

Mr. Lippmann writes further:

"But even this standard to which the Army has been reduced is not being met. To meet it the Army Nurse Corps should now have 50,000 nurses. In fact it has 41,500. Instead of a ratio—low enough in all conscience—of one to twelve, the average in fact in continental United States is now one to twenty-two. . . . .

"There are plenty of women in the United States who are already trained nurses. There are plenty of trained nurse's aides. There are women who are being trained as nurses and more can be trained as nurse's aides. The problem is soluble. But it is not being solved and there is no prospect that it is going to be solved by issuing appeals to the nurses to enlist in the Army. The problem can be solved only if the American people understand it, and then make up their minds to see that it is solved. This will demand very plain speaking.

"About two months ago there were in the United States some 27,000 nurses who were declared to be not engaged in essential nursing in civil life, and therefore eligible for the Army if they could pass the physical and other tests. The decision about who was essential was not made in Washington; it was made by responsible medical and nursing associations in each community, and we are entitled to assume that they took no unnecessary risks with the health of their own communities. The Army made no appeal to each of these 27,000 women. The Army received 760 answers, and 227 signed up. Out of the whole 27,000 the Army got less new recruits than there were nurses who for various good reasons had to leave the nurse corps during the month of November alone."

Mr. Lippmann is doing a major service to the Nation by calling attention to the needs of the armed forces for nursing service. If he is correctly informed, it seems to us to be the duty of every physician in this State, and of every county medical society, and of the woman's auxiliary of every county society where such exist, to lend aid to the local Red Cross Recruitment Committee and to find out the follow-up done by them on nurses in Class I.

"Women are not subject to the draft. They cannot be forced to serve. Moreover, unlike workers in war industries, they cannot be paid to serve by giving them high wages. They are neither compelled nor induced; they have neither a legal duty nor a pecuniary reward. This means that each woman who volunteers must do so because she has a much higher sense of public duty than we expect or find in the general average of this or any other nation.

"But it means also that each trained nurse who has to make the choice of enlisting is in fact offered a strong inducement not to enlist. If she stays in civilian nursing, she does not have to place herself under Army discipline, or go away from home, or face the discomforts and risks of service in the theaters of war. She can make a great deal more money because the civilian patients have a lot of money, and are willing to pay high prices for special private nursing. Finally, she is subject to considerable pressure of one kind and another to stay where she is, and so to protect her job and her career after the war.

"Women, though they are fit and without family responsibilities, have no national duty under the law to serve their country; there are combined financial and institutional and what might be called professional trade-union pressures upon women to prefer civilian to military service. The result is not only to discourage enlistment in the nurse corps, but to create inertia and resistance in the face of the many practical efforts being made to enlarge the supply of women who can do some nursing, be it as nurse's aides or Wacs. Only an aroused and informed public opinion, focused as it may be by a Congressional inquiry, can break this logjam in the recruitment of women to nurse the sick and wounded soldiers of the American Army."

Speculation as to the causes of the nurse shortage is of little present help to the armed services, to the Veterans' administration, and to the continental military hospital bases. It does not seem possible that present necessities for nursing service could have been seriously underestimated by the Surgeons General. Nor do we think that American women will fail the armed forces in their desperate hour of need, if the serious necessity is made plain to them, as Mr. Lippmann and others are attempting to do.

At the same time it is certainly permissible to ask why the large body of possible material classed as 4F has not been utilized where practicable as male ward attendants.

Many in this category have been rejected for military service for defects which would not seriously interfere with their perform-

ance of duty as ward attendants. Many would doubtless welcome the opportunity.

Recheck of draft registrants classified as 4F is now under way. If twenty weeks' training would qualify some of them as ward attendants, such procedure would seem to be worth considering.

"The record of the Medical Corps thus far is brilliant—measured by the lives it has saved, by the numbers of men who have been spared the crippling effects of their wounds, by the number of men returned to good health who in other wars would have become lifelong invalids.

"But I am saying, not on my own authority, of course, but on that of the responsible commanders, that this record cannot be sustained if the work of the surgeons and doctors and of the devoted Army nurses and corpsmen is not reinforced at once by more women—by women who know how to nurse the sick, and who by their presence, and because they are women moving about among men who are in pain, in fever, in low spirits, and are lonely, evoke the will to live and to recover."

Let us have the women nurses by all means, and as rapidly as possible. But let us not overlook any possible assistance for the seriously overworked men and women who are now carrying on as medical corpsmen and nurses.

---

[1] Bulletin 25, New York State Nursing Council, Nov. 15, 1944

[2] Nurses for the Armed Forces, New York State J. Med 44: 11, 1201.

The Bureau of Medical Care Insurance

The JOURNAL is pleased to announce that as of February 1, 1945, Mr. George P. Farrell, of Buffalo, will commence work for the Medical Society of the State of New York as Director, Bureau of Medical Care Insurance.

Mr. Farrell will have his offices at 292 Madison Avenue, New York City.

Mr. Farrell was born at Henrietta, New York, a short distance from Rochester. On completion of high school, he commenced a special educational course in life underwriting with the Connecticut Mutual Life Insurance Company of Hartford. He then entered the life insurance business with the Earl F. Colborn Agency in Rochester, New York, at the age of 20. With this agency his work was primarily concerned with estate planning. In 1925 he completed one of the first courses offered for certified life underwriters given by Columbia University. On completion of this special study he served for six years as a member of the Board of Directors of the Rochester Life Underwriters' Association.

In 1937, after leaving the Colborn Agency in November, Mr. Farrell associated himself with the Hospital Service Corporation of Western New York.

His duties were in the capacity of Supervisor of Enrollment.

In the early part of 1940, the Western New York Medical Plan was offered through the administration of the Hospital Service Corporation of Western New York on a service basis within certain income limitations. In 1943, the change was made from a service to an indemnity contract. The reason for this change, based on practical experience with the service feature, arose because of difficulties encountered from an enrollment and service standpoint on service contracts. It has been the experience of the Western New York Medical Plan after about two years of experiment with the indemnity form of contract, that it has been possible to eliminate a great deal of the misunderstanding which previously occurred between doctor and patient, when the service form of contract was in force.

With this background of experience, the new Director, Bureau of Medical Care Insurance, should be well equipped and prepared to carry forward the practical business of the establishment on a broad base of prepaid medical care insurance in this State.

We welcome Mr. Farrell and wish all success to the new Bureau.

An Adequate Diet, I*

When taking a history a physician often asks, "Is your diet adequate?" The patient may respond, "Yes, it is," and too frequently the discussion of diet and nutrition is ended.

An adequate diet must contain a sufficient number of calories. Because the caloric needs vary according to age, sex, and activity, the physician must be familiar not only with the caloric requirement of his patient, but also with the optimum proportion of the different foodstuffs, namely, protein, fat, and carbohydrate. He must also know the minimum mineral constituents necessary. And, last, he must know the vitamin requirement.

The minimum proportion of these calories which should be supplied as protein is about 10 per cent of the total calories, which figure is fixed by the body's specific need for this nutrient. The proportion which should be supplied as fat is a physiologic question of special importance economically because carbohydrates are the cheaper and more abundant source of energy. Both these foods are "protein sparers"; that is, carbohydrates and fats, by furnishing the calories necessary for body energy, allow the nitrogen of protein to be used for the synthesis of the amino acids required for building body proteins that replace wear and tear. In this role, carbohydrates are more directly useful than fats, for they maintain glucose blood level and unite with the nitrogen in the synthesis of amino acids. The role of fat in these functions is negligible. At the present time, little physiologic information is available as to just what the fat content of an adequate diet should be.

The body is unable to synthesize from carbohydrates or fats, in general, certain fatty acids essential for growth, notably linoleic and linolenic, as judged from studies with rats. These fatty acids must be supplied in the diet quantitatively to the extent of 1 per cent of the total calories. Fortunately, these essential acids are widely distributed and are found in such food fats as lard, soybean oil, cottonseed oil, and peanut oil. Unquestionably, diets with a liberal amount of fat are much more palatable and, because of this, are more likely to be adequately consumed than bulky diets. Because fat has a heat value which is over twice that of carbohydrates, it reduces the amount of food required to meet caloric needs. This is of special importance when the caloric requirements are high, as for persons at hard work. Fat, because of its slow passage through the stomach, delays hunger pains and therefore has a satiety value.

The Food and Nutrition Board of the National Research Council[1,2] has recommended that the diet in general should contain a minimum of 20 to 25 per cent of its calories in the form of fat; and that for children and persons at hard work, the desirable range should be 30 to 35 per cent. These recommendations appear to be backed more on general information and observations than on quantitative data. They pertain to diet requirements for Western peoples only, for the requirements of Eastern peoples, who now eat less than 10 per cent of fat in their diet, are more obscure.

Because calories produced from animal fat require more land and labor than those derived from vegetable fat, the latter source is a cheaper one. The relative value in the diet of these sources is an important question both economically and physiologically. At the present time there is no physiologic evidence which justifies any generalization that animal fats are nutritionally superior to vegetable fats. Fortunately, the essential fatty acids are found in both sources. The amount contained varies according to specific source rather than according to class.

That some fats are nutritionally more valuable because of their content of fat-soluble vitamin A is known, the most notable example being butter. There are, however, many other food sources of this vitamin, namely, milk, green leafy vegetables, carrots, and oleomargarine fortified with vitamin A. The important physiologic question is whether the unique fatty-acid distribution in butter gives it a physiologic advantage over other fats. Despite many studies, science has not been able to demonstrate any such advantage in a mixed diet.

* This is the second editorial in a series on "The Facts of Nutrition." The first appeared in the January 1 issue.

[1] Recommended Dietary Allowances, National Research Council, Reprint and Circular Series No. 115, January, 1943.

[2] Fats in Human Nutrition, confidential report, Committee on Fats, Food and Nutrition Board, National Research Council, June 7, 1942.

THE EPIDEMIOLOGY OF POLIOMYELITIS*

JAMES E. PERKINS, M.D., Albany, New York

I HAVE been asked to talk upon the epidemiology of poliomyelitis, that is, the community characteristics of the disease in contrast with its characteristics as it occurs in the individual patient. The epidemiology of poliomyelitis consists in the study of the disease according to age groups, sex, geographic pattern, seasonal and annual cycles, and so on. However, as the late Dr. Wade Hampton Frost commented, "Epidemiology .... is something more than the total of its established facts. It includes their orderly arrangement into chains of inference which extend .... beyond the bounds of direct observation."[1] Rather than merely present a series of dry statistics covering all phases of poliomyelitis, therefore, I hope to present selected epidemiologic data in a certain order which I think throws light on the manner in which poliomyelitis usually is spread.

Our status with regard to poliomyelitis is similar to that of about eighty years ago with regard to cholera and typhoid fever. At that time the science of bacteriology had not been established and there were many divergent and strongly acclaimed theories as to the manner in which cholera and typhoid fever were being spread. Certain physicians[2,3] of that time, however, studied intensively the patterns of spread of these diseases. They concluded that cholera and typhoid fever were being caused for the most part by the drinking of water polluted by the excreta of infected individuals. These conclusions were entirely confirmed later when the development of the science of bacteriology resulted in the identification of the specific causative micro-organisms.

As to poliomyelitis, since the causative agent is a filterable virus, and because there is no cheap, small laboratory animal which may be infected *directly* with secretions or tissue from human beings, unusual difficulties have been encountered in direct laboratory experimentation, so that at the present time we must still depend to a large extent upon epidemiologic evidence to give us information as to the usual manner of transmission.

It is obviously important that we do have a reasonably accurate conception of the manner of transmission if we are to give intelligent advice to the public. Newspaper clippings which have come to my desk during the summer indicate greatly diverging views expressed by various physicians throughout the state as to the way in which poliomyelitis is spread. I do not wish to give any impression of ridiculing the opinions which have been given. They were expressed by intelligent physicians who were giving advice on the basis of observations they had made or on their interpretation of what they had seen in the literature. However, since the average physician sees only relatively few cases of poliomyelitis even at times of epidemics, his observations are necessarily limited, and it is possible that these limited observations may lead at times to incorrect inferences with regard to the disease as a whole.

Study of the statistical data on poliomyelitis received in the New York State Health Department together with certain rather unusual opportunities to study in the field the pattern formed by acute cases of the disease[4] have led me to some rather definite conclusions concerning the usual manner of spread of poliomyelitis. Please note I stress the word "usual." I see no reason why in poliomyelitis, as in certain other communicable diseases, spread may not occur occasionally in more than one way, and as I shall indicate later, there is evidence that at times unusual modes of transmission apparently have occurred.

Susceptibility

So as to have an orderly presentation, let us recall that for a human case of communicable disease to occur, there must be (1) a susceptible person to acquire the disease, (2) a reservoir of infection, and (3) some means of transmitting the infection from the reservoir to the susceptible person. As to the first factor, susceptibility, it must be clearly kept in mind that in poliomyelitis, paralysis is a relatively rare complication of the disease. I cannot stress this point *too strongly, since it is essential to a clear understanding* of the epidemiology of poliomyelitis. This has been adequately demonstrated through clinical observation and confirmed by laboratory studies. In some recent studies which the New York State Department of Health[5,6,7] conducted in two rural communities in which cases of paralytic poliomyelitis had occurred, we found by virus studies of stools that there were many more

* Presented in abbreviated and modified form at teaching days on poliomyelitis held in Elmira, Buffalo, Rochester, Syracuse, Oneonta, Mineola, Poughkeepsie, Plattsburg, and Alexandria Bay during July and August, 1944, under the auspices of the various county medical societies, the Medical Society of the State of New York, and the New York State Department of Health.

Director, Division of Communicable Diseases, State Health Department, Albany, New York.

infected individuals in the area than those who went on to clinically recognizable poliomyelitis, and with a concentration of these infected individuals among those with a history of association with the paralytic cases.

I shall not attempt in this discussion to consider in detail the possible factors responsible for development of the paralytic form of the disease in the occasional child. I merely wish to point out that everyone is in agreement that the number of nonparalyzed patients with the disease markedly exceeds the number of paralytic patients. In spite of this, observers often seem to forget this well-established fact in stressing certain so-called "mysterious" aspects of the disease. Often-quoted statements, such as, "Only one case occurs in a family," and "One can never trace one case to another," are the result of omitting from consideration this fact of the prevalence of nonparalyzed cases.

Another epidemiologic observation in connection with this matter of susceptibility is the absence of cases in a community for a period of years following an epidemic. This is similar to the observed facts in measles and other diseases with a high rate of infection and with a high degree of immunity resulting from infection. In other words, the forest fire consumes the dry wood, and one must wait for an additional accumulation before another conflagration is possible. This brings up another often-quoted "mysterious" observation in poliomyelitis; namely, the way in which the disease will fail to invade a certain community in a given outbreak. Not infrequently one finds that the community in question had an outbreak within the previous few years. The phenomenon then becomes about as mysterious as observing a forest fire fail to invade a swampy area.

Reservoir of Infection

As to the reservoir of infection, there is no definite evidence that there is an animal reservoir other than man himself. Furthermore, the epidemiology of the disease does not indicate that any animal or insect reservoir of infection is actually necessary any more than such a reservoir is necessary for the perpetuation of measles.

It may be pertinent at this time to digress for a moment to consider what human secretions or excretions are infectious and the usual portal of entry. The relatively recent confirmation[8,9] of the presence of the virus in large quantities and for long periods of time in the stools of infected individuals is an important observation, but this observation alone does not justify the conclusion that the usual manner of spread is through the feces. It is readily possible to demonstrate tubercle bacilli in gastric contents and in feces; yet no one claims that tuberculosis is spread ordinarily via feces. On the other hand, the presence of poliomyelitis virus is also readily demonstrated in the pharyngeal mucosa and oropharyngeal secretions[10,11]—and let me point out parenthetically that the pharynx is part of the gastrointestinal tract, as well as the respiratory tract. I should state that when I use the term "respiratory-spread," I mean the manner of acquiring infection; that is, through droplets or droplet nuclei. The actual portal of entry in poliomyelitis, I suspect, is usually the pharnygeal mucosa, although it may at times be lower in the gastrointestinal tract.

A recently published article bears on this point. Faber, Silverberg, and Dong[12] present data indicating that four Cynomolgus monkeys were infected through inhaling apparently true air-borne droplet nuclei from virus suspensions sprayed into the air even though the olfactory nerve route had been blocked. Histologic study revealed that in three cases invasion of the central nervous system probably had been by way of the afferent fibers of the trigeminal nerve into the Gasserian ganglion and thence to its central connections in the pons-medulla, and in the fourth case invasion had been by way of the sympathetic fibers of the nose or nasopharynx into the cervical sympathetic ganglia and thence into the uppermost levels of the thoracic cord. In one monkey the results were particularly clear-cut, and I quote from the comments concerning the results in this monkey:

> "Summary.—This is a particularly clear-cut example of entry of infection from the mucosa through the afferents of the fifth cranial nerve into one Gasserian ganglion with involvement of its central connections and spread to the lower brainstem and cord—no bulbar phenomena were noted, and the primary site of paralysis was in the legs—clear proof is presented that primary leg paralysis was not due to primary entry through the intestine....."

I hesitate to quote animal laboratory experiments because all too often in the past it has been found such studies were not applicable to the disease in human beings and they have led us astray at times rather than clarified things. I have in mind particularly the demonstration of the ease of infection of monkeys through gentle application of the virus to the nasal mucosa which seemed to agree so well with epidemiologic data, but upon histologic and virus examination in human cases it was found that the usual route of infection was *not* via the olfactory nerves. This observation in no way invalidated the unrelated epidemiologic data suggesting person-to-person spread in poliomyelitis. The carefully conducted epidemiologic studies of thirty years

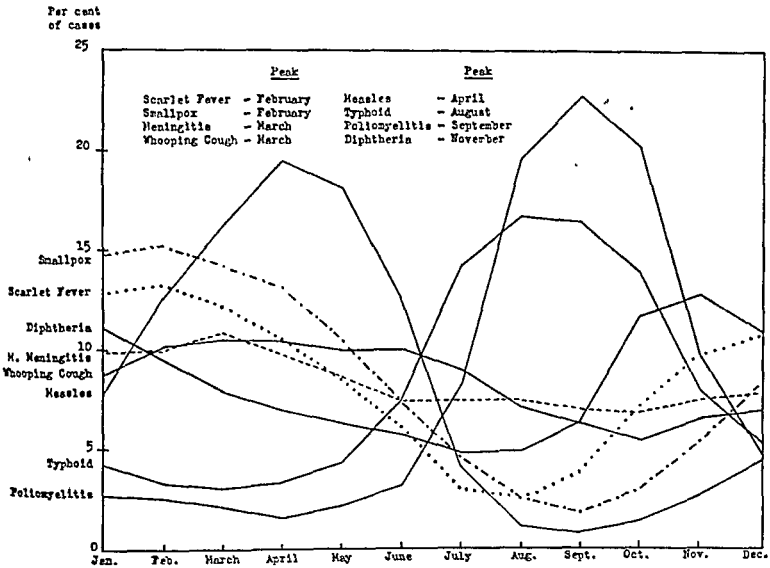


FIG. 1. Seasonal prevalence of certain communicable diseases from the report on communicable-disease control, White House Conference.[15]

(U. S. Registration Area 1921–1927, incl.)

ago, such as those by Frost,[13,14] are as significant today as they were when originally reported, and in my opinion are a much firmer foundation for the building of a conception as to the mode of transmission than more recent laboratory animal experiments of questionable interpretation in terms of human beings.

Mode of Infection

Insects.—Considering next the third factor, namely, the actual manner of transfer of infection from the reservoir to the susceptible individual, let us consider briefly insects, water, milk, and person-to-person contact. One very good reason that an insect vector has been considered strongly has been the well-known observation that the peak of poliomyelitis usually occurs in the summer when certain insects are prevalent. It must be stressed, however, that the mere prevalence of an infection in the summertime is not in itself a fact which excludes the possibility of spread through person-to-person contact. Every communicable disease has a seasonal variation in prevalence of infection[15] (Fig. 1). It is agreed by all physicians that diphtheria, scarlet fever, and measles are usually spread through person-to-person contact via the respiratory tract, and yet the usual peaks in these diseases are scattered throughout the seasons, with the peak in diphtheria in this latitude being in the late fall, that of scarlet fever in the winter, and measles in the spring. The interval between the peaks in diphtheria and measles, in fact, is greater than that between the peaks of poliomyelitis and diphtheria, or poliomyelitis and measles. The often-quoted statement that poliomyelitis disappears as soon as there is a frost is not an accurate statement. Although, in general, poliomyelitis is on the down-swing at the time cold weather sets in, there is no close correlation between temperature and prevalence of the disease, with epidemics frequently continuing well into cold weather.

Another basis for doubting the factor of an insect vector is through the comparison of the pattern of spread of poliomyelitis with the patterns in diseases in which we know that insect vectors are involved. Malaria, for example, is

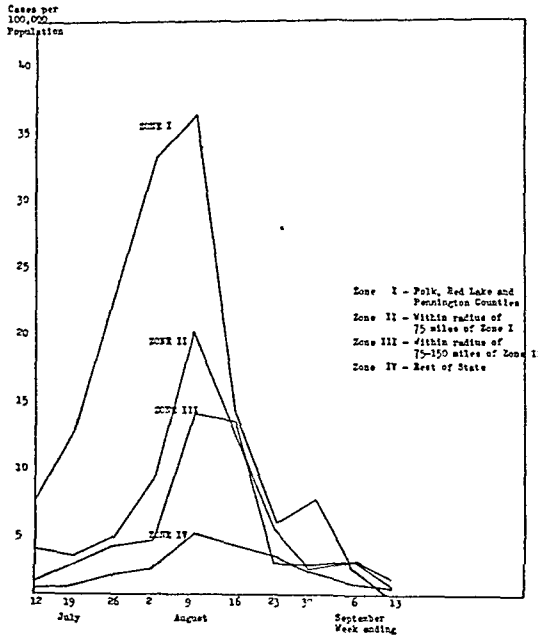


FIG. 2. Equine encephalitis cases in Minnesota in 1941.

very much of a rural disease in the United States; in endemic foci the malarial death rate in rural areas is several times that in the urban communities in those areas.[16] In poliomyelitis, although the rates are higher in rural areas, the difference between the rates in the largest communities and the very rural areas is such that one is hardly justified in calling it a disease of rural areas. Thus, for the twenty years 1920–1939 in upstate New York the average annual morbidity rate for places over 250,000 population was 7.0; places of 50,000 to 250,000 population, 8.4; places of 10,000 to 50,000 population, 8.9; places of 2,500 to 10,000 population, 9.4; and for places of under 2,500 population, 11.3. It was found that rates based on anything less than a ten-year period were unreliable, since statistics for shorter periods are usually dominated by one particular outbreak of extensive proportions and the rates by population groups are markedly affected according to the size of the community which was affected in that particular outbreak.

If one considers numbers of cases rather than rates, three fourths of all the cases reported from 1920–1939 occurred in places of 10,000 population or larger, which would not indicate that poliomyelitis is primarily a rural disease.

Two other diseases which we might compare with poliomyelitis are equine and St. Louis encephalitis, which have been shown to be spread by mosquitoes. These are predominantly rural diseases and occur principally in adults, in contrast with poliomyelitis. Following the very large 1941 outbreak of equine encephalitis in northwestern Minnesota, northeastern North Dakota, and that part of Canada immediately adjacent to these areas, in which there were hundreds of cases of equine encephalitis, we obtained the case reports for Minnesota by date of onset and locality from the Minnesota Health Department, and tried to demonstrate a radial manner of spread, with complete lack of success. There was a progressively lower attack rate as one proceeded from the central focus through concentric zones drawn around it, but in all zones, the peak occurred at the same time, instead of at a progressively later date as one proceeded peripherally from the focus (see Fig. 2). In other words, there was no evidence of peripheral spread but merely a variation in attack rates as one proceeded outward from the central focus.

As to flies, the demonstration of the presence of virus on flies which have been permitted to come in contact with human excreta certainly indicates a theoretic possibility that they may at times spread the disease, but it does not indicate necessarily that flies are the *usual* means by which the disease is spread. The marked reduction in the fly population in large cities (resulting from virtual elimination of horse-stables) and the elimination of privies in large cities (resulting in elimination of access by flies to poliomyelitis virus in human excreta) has not been followed by a reduction in the prevalence of poliomyelitis in these large cities, which would suggest that flies ordinarily are not very important in the transmission of the disease. In the recent large outbreak in Buffalo it is beyond my comprehension that flies have played any appreciable role in the spread of the disease in that city.

Water.—As to transmission through water, this has been covered so excellently by Dr. Kenneth F. Maxcy, professor of Epidemiology, Johns Hopkins School of Hygiene and Public Health, that I need only refer you to his article.[17] Suffice it to say at this time that in his intensive study of this possibility, Dr. Maxcy points out that from laboratory data it would seem to be a definite possibility that the disease might be spread in this manner. He then goes on to examine the evidence and finds none that it ever has been so transmitted. Outbreak after outbreak of typhoid fever, gastro-enteritis, and other illnesses have been shown conclusively to have been water-borne, but there is no outbreak on record in which the usual characteristics of a water-borne outbreak have been found, in spite of these poliomyelitis outbreaks having been studied intensively by well-qualified investigators

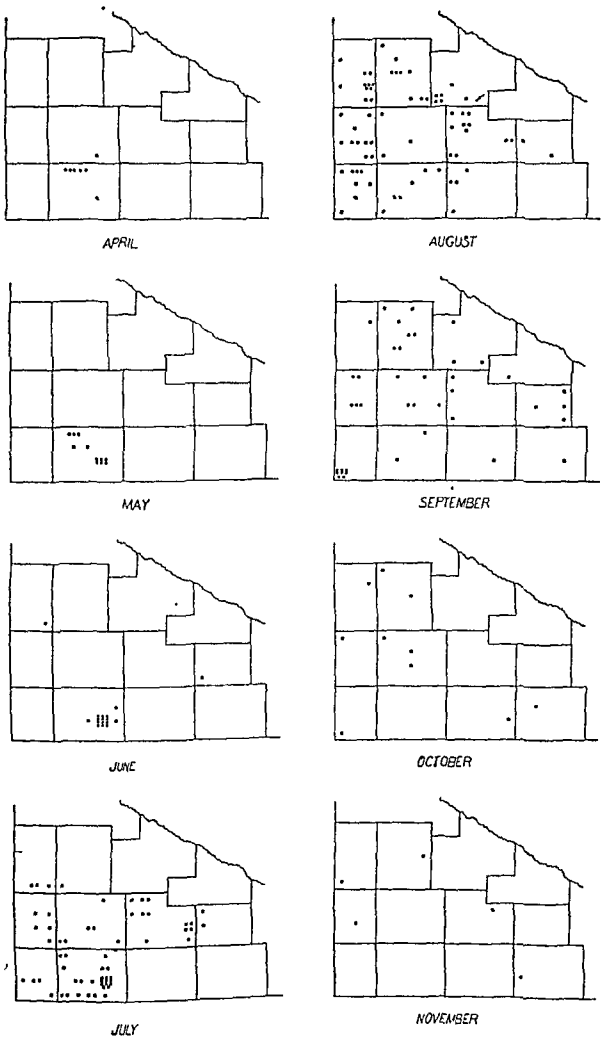

POLIOMYELITIS CASES BY MONTH OF ONSET
SOUTHWESTERN MINNESOTA
1930
APRIL
AUGUST
MAY
SEPTEMBER
JUNE
OCTOBER
JULY
NOVEMBER

FIG. 3.

who have incriminated water supplies in other investigations conducted by them. Poliomyelitis outbreaks simply do not occur in explosive form, confined to the consumers of a given common water supply. It usually spreads peripherally from a focus in some locality, extending progressively outward, completely disregarding the boundaries of common water supplies. This, of course, does not rule out the possibility of an occasional household outbreak caused by a single polluted well, but if this happens with any frequency, one would expect, as in typhoid, that a similar situation would inevitably occur sooner or later in connection with a municipal water supply, which apparently has not been the case.

Milk.—As to milk, two outbreaks have been recognized in New York State in which it seems quite conclusive that raw milk was the means of transmission, one in 1916[18] and one in 1925,[19] involving only seven and eight cases, respectively. In each instance investigation revealed that an acute case of poliomyelitis had occurred shortly before the outbreak on the farm or dairy from which the raw milk came. Furthermore, there were certain flagrant violations of sanitation and hygiene in each instance so that there was ample opportunity for direct pollution of the milk to have occurred, and if milk transmitted the infection it probably merely served as a mechanical means of dissemination of an unusually heavy dosage of the virus. In spite of intensive investigation, no other outbreaks having the characteristics of a milk-borne affair have been recognized in this State, and, on the contrary, a wealth of evidence has been uncovered indicating that milk supplies are not involved ordinarily in the transmission.

Person-to-Person Contact.—Finally, let us consider transmission through person-to-person contact. Many of the statements which have been made thus far obviously indicate that poliomyelitis has many features in common with communicable diseases which are known to be so transmitted. Previous reference has been made to the radial spread of poliomyelitis, and Fig. 3 illustrates this phenomenon in the first cases I investigated in the southwestern corner of Minnesota in 1930. Each large division represents a county, and each small solid square a case of poliomyelitis by month of onset. The concentration of cases through July in the second county (Nobles) east of the corner in the lowest tier represents those in the village of Worthington, which served as the focus of dissemination in this outbreak.

Radial spread in poliomyelitis had been demonstrated many times before this, and it has been possible to demonstrate it repeatedly in New York State. In the current, 1944, outbreak, radial spread again seems to have occurred. There have been two principal foci: one in Erie County, and one in Steuben and Chemung counties combined. In Erie County the disease seemed to spread from the town of Eden northward (Lake Erie is a short distance west of the town) to Hamburg, to Lackawanna, and on to Buffalo. Interestingly and significantly, in this last outbreak in Buffalo cases seem to be concentrated in the outlying sections of the city, largely sparing the heavily populated central sections of the city which were principally attacked in the 1939 outbreak. In the Steuben-Chemung area, the disease spread across the State line from Tioga County in Pennsylvania, where an unusual number of cases (four) occurred scattered through the previous fall and winter in the hamlet of Knoxville and vicinity, flaring into an epidemic in the nearby village of Elkland and vicinity in May and June. The village of Addison just over the line in New York bore the brunt of the epidemic in that part of New York State. With a population of only 1,617 (1940 census) the village reported 16 cases with onsets from June 12 to July 26. The disease then fanned out peripherally, involving Corning, Elmira, and Hornell.

Radial spread in poliomyelitis is of interest for several reasons. The disease is on the wane in the central focus while it is still ascending in the outer concentric zones. These areas are so close together that, obviously, they are under the same climatic conditions, so that the decrease in the central zone cannot be explained by a change in weather conditions. The most obvious explanation is an exhaustion of susceptibles in the central focus, and it may be compared with a brush or grass fire, in which the blaze dies out in the center as it continues to flare up around the periphery.

As I have pointed out before, we were unable to demonstrate a similar phenomenon in connection with the epidemic of equine encephalitis in Minnesota in 1941. A similar picture may be obtained, however, by analyzing data for measles. Fig. 4 shows the spread of measles in Genesee County in 1939, together with the radial spread of poliomyelitis in the same county the same year. In the measles part of the chart, Zone I consists of the towns of Darien and Pembroke; Zone II, the adjacent towns of Alabama, Oakfield, Elba, Batavia, Alexander, and Bethany; and Zone III, the rest of the county.

We have been able to demonstrate this radial spread in measles elsewhere in the state and in other years. As a matter of fact, if one considers a complication of measles such as bronchopneumonia to represent a complication corresponding to paralysis in poliomyelitis, these [illegible] re

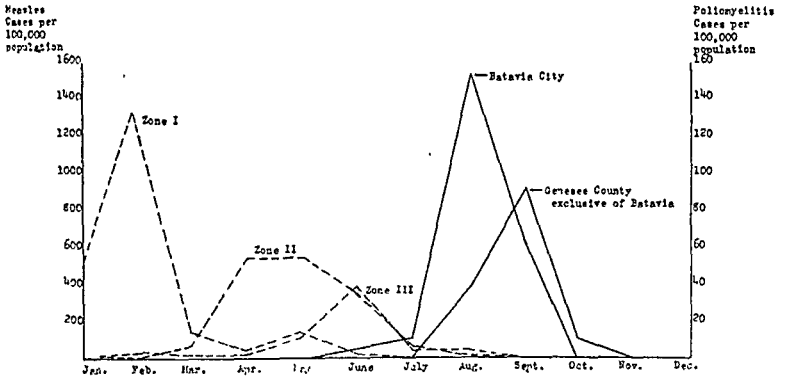


FIG. 4. Measles and poliomyelitis in Genesee County during 1939 Measles- - - - Poliomyelitis———

remarkably similar other than with regard to the time of year when the majority of cases occur.

Another similarity to measles besides radial spread is the general age distribution. Measles, to be sure, has more of a concentration of cases in the 5–9 age group than does poliomyelitis, but both are predominantly childhood diseases. Furthermore, in both diseases in individuals 10 years of age and over, there is a progressively increased morbidity rate as one proceeds from large cities to small cities, to villages, and, finally, to completely rural areas. This phenomenon, in fact, is noted in other respiratory-spread diseases in which the causative agent is widespread and a high degree of immunity results from an attack of the disease. It is generally considered to be caused by the fact that in smaller communities there is less contact between individuals, and one is more likely to first encounter a given pathogenic micro-organism at an older age.

These statistical observations, which indicate that poliomyelitis more closely follows the pattern of diseases known to be spread through person-to-person contact, suggest that the usual mode of transmission is by that means. In addition, many direct observations have been made which suggest the disease is so spread. It is rather surprising, in fact, how frequently one can trace the infection from one family to another provided one conducts an intensive investigation in a rural area where there are fewer contacts with unknown individuals than is the case in the city. I have made a number of such observations,[4] and one of these in the 1930 Minnesota outbreak is of special significance, in my opinion.

Prior to the reporting of poliomyelitis in twin boys, aged 19 months, from Osceola Township, Renville County, essentially all of the cases had been confined to the southwestern corner of Minnesota. These two cases, however, were distinctly beyond the focus of that time. In spite of questioning and cross-examining, I could not shake the mother from her assertion that the twins had not been away from the community at any time during the entire summer and that they had had no visitors. I recalled, however, that in a prior investigation of cases in a family in the village of Holland (in the focus), I had secured a history to the effect that after known exposure to poliomyelitis, the family had gone on an automobile trip toward the center of the state, and that while away on this visit, one of the children, a boy, A. N., aged 9, had become ill on July 20, causing the family to return home. This child developed a typical paralytic case of poliomyelitis. I therefore drove the 109 miles back to Holland Village and reinterviewed this family, inquiring exactly as to where they had been on their auto trip. I shall never forget the thrill I received as the mother gave me directions to reach the farm where they visited, for in telling me to take a certain new highway, fork onto the old highway at a certain point, turn left at the end of this road where a meeting house was located, et cetera, she was giving me directions leading directly to the farm of the twins! But she stopped one farm this side. I then dashed back to the farm where this family had visited and learned that two children on the farm, a girl, E. B., aged eight, and a boy, R. B., aged seven, had become ill about July 25, after the visitors from Holland Village had left. Their younger sister, G. B., aged three, who had been away on a visit, was brought back to the farm just prior to the development of the illnesses in her brother and sister, and about August 1, she, too, became ill. All three of the illnesses were called by the family "summer flu," but the boy, R. B., gave

a history of having difficulty in walking for a period following his illness, and I have classified his case as one of paralytic poliomyelitis. The twins had been brought over by their mother to this neighboring farm to visit, and had played with G. B., right at the time of her illness. About a week later the twins became ill, both on the same day, August 7. One developed paralysis of the left leg, and the other paralysis of the right deltoid muscle.

This series is of particular interest because if one investigator had not investigated both the Holland Village family and the Renville County cases and had not obtained and remembered the history of an automobile trip by the former to the general vicinity of the latter, the connection between the two would not have been discovered. If the association had not been determined, these cases in the twins might very well have been held up as examples of poliomyelitis suddenly appearing in a community in which there had been no poliomyelitis previously, and occurring on an isolated farm among children who had not been away all summer and who had had no visitors.

From the above and other observations, I feel that the theory to the effect that the usual mode of transmission in poliomyelitis is through person-to-person contact checks better with all of the epidemiologic observations than any other theory. I feel, therefore, that any advice which is given at present to the public should be consistent with this conception as to manner of spread.

Control Measures

This brings one to the question of control. Offhand one might be inclined to say that upon the theory of person-to-person spread the obvious procedure to follow upon the appearance of the disease in a community would be to rigidly restrict the mingling of people, especially children, and to rigidly isolate every reported case until noninfectious, as well as to quarantine all contacts. Upon more sober reflection, however, it will be realized there are two facts which militate against the effectiveness of such a program; namely, (1) that ordinarily the only cases reported to the health department are definitely paralyzed cases, which represent only a small fraction of the total infected individuals in the community capable of spreading the infection, and (2) by the time the case is reported, the patient usually has had ample opportunity to pass the infection to others. This latter point hinges upon whether the oropharyngeal secretions or the feces are the chief sources of infection. If feces are of major importance, which I question, isolation is impractical since from experimental evidence we know the feces contain the virus for long periods of time and a corresponding period of isolation would not be feasible. Furthermore, there is no practical, simple laboratory examination available for the routine determination of the termination of the presence of virus in the feces. If the oropharyngeal secretions are principally of importance, which I believe to be the case, there is epidemiologic evidence[4,20] that the patient is infectious for a relatively short period of time, principally at the time of or just before the first appearance of symptoms, when diagnosis is difficult or impossible.

Poliomyelitis, then, appears to fall into the respiratory-spread group of diseases represented by such diseases as chickenpox, smallpox, diphtheria, measles, whooping cough, meningococcal meningitis, and pneumonia. In none of the diseases in this group have public-health authorities been successful in controlling the spread of infection except in those instances in which an effective means of active immunization has been developed. The tendency of health departments in the diseases of this group for which there has not been devised as yet an effective means of active immunization has been to discard rigid isolation and quarantine requirements, which have been found to be ineffective in controlling spread and a waste of the valuable time of health officers and public-health nurses, in favor of concentrating upon those aspects of these diseases in which something may be accomplished, such as passive immunization of the infant exposed to measles, and prompt and adequate medical care of the patient developing meningococcal meningitis or pneumococcal pneumonia.

The Public Health Council is to be congratulated on its recent modification of the Sanitary Code restrictions in this disease, confining them to isolation of the patient during the febrile stage. This probably covers the period of greatest infectiousness, and brings the restrictions in this disease into line with those applying to the other diseases in this group. It is more important in poliomyelitis to put emphasis upon prompt and adequate medical and nursing care of the individual developing evidence of involvement of the nervous system than to engage in ritualistic quarantine procedures merely to impress the public that the health department is "doing something."

The consideration of quarantine brings up the question of the advisability of closing theaters, churches, and places of business in an outbreak. I feel that this definitely is not the procedure to be followed. It has been attempted in communities from time to time during the past thirty years, and in each instance has been found to be of no avail in checking the spread of the infection, although very effective in disrupting the entire social and economic life of the community. It may be discreet to discontinue temporarily com-

munity-operated places of congregation of children, such as schools and swimming pools, even though any effect on an outbreak by such a procedure is doubtful. For the most part responsibility for restriction of the activities of children should be placed upon the parents.

I think it is sound, in the presence of an epidemic, to advise parents to keep their children [illegible] children in so far as [illegible] avoid contact with [illegible] symptoms of illness whatever, regardless of the apparent diagnosis. This latter is good advice anyway, since in practically every communicable disease the patient is most infectious during the first stages when the symptoms have not developed to a point where a diagnosis is feasible. As a matter of fact, in poliomyelitis this advice with regard to avoiding crowds and ill individuals may be more logical from the standpoint of reducing dosage rather than preventing infection altogether. This point is admittedly upon a theoretical basis, but has some foundation, since in the experimental disease the outcome within limits varies with the amount of virus given. It will be extremely difficult, if not impossible, to so isolate a child as to eliminate every possibility of having the virus brought to him. From a cold scientific standpoint, there may be some doubt, in fact, as in measles, as to the wisdom of postponing to adulthood one's first encounter with the virus even if it were possible to do so. The case-fatality rate definitely increases with age. Perhaps it is better to attempt to reduce the likelihood of excessive dosage and to have the child in as good condition as possible to emerge unscathed from the encounter, which brings me to my next bit of advice to parents.

When poliomyelitis is prevalent in a community (which is another way of saying that at that time children in that community are more likely to have their first contact with the virus) parents should attempt to see that the children do not become overfatigued, since there is evidence that fatigue may be of importance in determining the extent of paralysis. Furthermore, clinicians seem in agreement that often the worst cases of paralysis develop in individuals who, in spite of being ill, continue excessive activities until they finally are so incapacitated they can carry on no longer.

Upon experimental evidence, chilling should also be avoided,[21] since it, too, possibly may predispose to the development of more severe paralysis than might otherwise be the case.

Another point is that there is sufficient evidence of the association of the serious bulbar type of poliomyelitis with tonsillectomy[22,23] to justify recommending that in an area in which poliomyelitis is occurring in epidemic form, tonsillectomies be postponed until after the outbreak, unless there is some urgent indication for the tonsillectomy.

Care of Paralyzed Patients

As to the aspect of control where governmental agencies can be of greatest assistance—namely, care of the occasional person who develops the paralytic form of the disease—New York State is particularly well equipped to give such assistance after the febrile stage through the provisions of the Handicapped Children's Act for those under 21 years of age, and the Shaw Act for older individuals. In addition, a corps of specially trained orthopedic nurses and physiotherapists are on the staff of the State Department of Health, and in times of epidemic are shifted from their usual districts to the areas particularly affected. The department also provides diagnostic assistance through the medical staffs of its district offices, and consultation service by orthopedic surgeons. In the acute febrile stage, care is provided by the local welfare authorities for persons on relief, and by the local chapters and central office of the National Foundation for Infantile Paralysis in borderline cases. The assistance through this Foundation has been invaluable in the current outbreak.

Future Control

As to the possibility of better control measures in the future, it may yet be possible to devise effective specific therapeutic measures, although there is nothing very encouraging along that line at present; and treatment, at best, is less desirable than prevention. As to prevention, I see no possibility of preventing infection unless an effective, thoroughly safe vaccine is developed. This phase, of course, has not been neglected, and as soon as monkeys were first shown to be susceptible to poliomyelitis infection, attempts were made to prepare an effective vaccine. Unfortunately, the methods employed at that time to kill the virus in the preparation of an inactivated vaccine destroyed the antigenicity as well. Vaccines in which the virus continued to remain alive were effective in producing immunity, but they also resulted in producing the disease in a certain percentage of instances, so that the vaccine was actually more dangerous than the disease itself. This same cycle was again traversed about 1935, and the same conclusions reached.

As to recent attempts, Milzer, Oppenheimer, and Levinson[24] claim the production of a completely inactivated poliomyelitis vaccine found effective in protecting mice against the homologous mouse-adapted Lansing strain of the virus.

This vaccine was produced by the newly developed method of ultraviolet light irradiation for a fraction of a second. This is the first instance in which a completely inactivated poliomyelitis vaccine has been demonstrated to have retained its antigenicity. This experiment deals essentially only with mice and only with the Lansing strain, so one must not become enthusiastic as yet. Before any possible application to human beings, it must be tried on many more mice and in many monkeys, and with other strains of poliomyelitis virus besides the Lansing strain. Since this vaccine consists of mouse-brain material, the question also arises as to the possibility of sensitization reactions upon repeated injections of the material. Obviously, any vaccine used to prevent poliomyelitis must be an unusually safe product, since, even in epidemic times, only a very small percentage of the children are attacked with the serious form of the disease, and an unsafe vaccine may do more harm than good. However, this work by the Chicago workers is definitely encouraging, and it is barely possible that in a few more years the problem of poliomyelitis may be solved through active immunization.

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AMERICAN BOARD OF OBSTETRICS AND GYNECOLOGY ANNOUNCES CHANGES IN REGULATIONS AND REQUIREMENTS

A number of changes in Board regulations and requirements were put into effect at the Board's last annual meeting. These were designed to aid civilians as well as candidates in the Service. Among these is the waiver, temporarily, of the A.M.A. requirement for men in the Army or Navy, especially for those who proceeded directly or almost so from hospital services into Army or Navy Service, upon a statement of intention to join promptly upon return to civilian practice. At this meeting the Board decided also to accept a period of nine months as an academic year in satisfying our requirement for certain years of training. This is only for the duration and even men who are not eligible for military service but who are nevertheless in hospitals where the accelerated program is in effect have been allowed to submit to us this short-time period of training in lieu of our previous requirements.

Beginning with the next written examination, which is scheduled to be held February 3, 1945, this Board will limit the written examination to a maximum period of three hours and in submitting case records at this time, all obstetric reports which do not include measurements either by calipers and, as indicated, by acceptable x-ray pelvimetry, will be considered incomplete.

Prospective applicants or candidates in military service are urged to obtain from the Office of the Secretary a copy of the "Record of Professional Assignments for Prospective Applicants for Certification by Specialty Boards" which will be supplied upon request. This record was compiled by the Advisory Board for Medical Specialties and is approved by the Offices of the Surgeons General, having been recommended to the Services in a circular letter, No. 76, from the War Department Army Service Forces, and referred to as the Medical Officer's Service Record. These will enable prospective applicants and candidates to keep an accurate record of work done while in military service and should be submitted with the candidate's application, so that the Credentials Committee may have this information in reviewing the application.

Applications and a bulletin of detailed information regarding the Board requirements will be sent upon request to the Secretary's Office, 1015 Highland Building, Pittsburgh 6, Pennsylvania.

The time and place of the Spring, 1945 (Part II) examination will be announced later.

COMMUNITY ORGANIZATION FOR THE CONTROL OF RHEUMATIC FEVER

DONALD B. ARMSTRONG, M.D., Sc.D , and GEORGE M WHEATLEY, M.D., M.P.H., New York City

THE purpose of this paper is twofold: (1) to suggest a plan for community action in the control of rheumatic fever; (2) to urge physicians interested in this disease to help initiate such community organization. Today, largely through the work of Swift,[1] Hedley,[2] Paul,[3] and others, physicians generally are aware of the public health importance of this disease in the United States. Along with tuberculosis and syphilis, rheumatic fever is now one of the "big three" remaining infectious disease problems in American communities.

Magnitude of the Problem

The public health importance of rheumatic fever is based not only on the contribution it now makes to mortality and morbidity, including its relation to cardiac pathology, but on the complex problem of providing adequate care for many of its victims. In spite of incomplete reporting of deaths due to rheumatic fever, the death rates for chronic rheumatic heart disease and acute rheumatic fever are not negligible. For example, in 1942 among the general population, the combined rate for all ages was 20 per 100,000.[4] In ages 5 to 19, it is, among diseases, the leading cause of death. And rheumatic fever mortality rates do not tell the whole story. The infection is responsible for a large fraction of cardiac deaths and for heart disease which completely incapacitates or hampers the economic productivity of thousands in their prime years. Clues to the size of this group are obtained by school medical surveys and the medical examination of draftees. Table 1 reflects the geographic incidence of rheumatic heart disease among school children in some major cities of the United States. In draft examinations in New York City in 1940–1941, heart disease was a cause of rejection in over 40 per 1,000 selectees.[5] And now, judging by the current reports on the occurrence of rheumatic fever among men actually in service, many more young individuals are included among its victims.[6] Clearly these facts call for organized efforts to control the disease.

Known Causative Factors

Our knowledge about rheumatic fever suggests certain points of attack. Like tuberculosis, socioeconomic factors appear to influence the occurrence of rheumatic fever. Epidemiologic studies show a high correlation between recurrence of rheumatic fever and such factors as crowded, unhygienic living conditions and poor nutrition.[14] The disease also tends to be concentrated in certain families[15] and may be influenced by psychologic factors as well.[16] Perhaps the most important of the causative factors is the role of the streptococcus in precipitating attacks of rheumatic fever. And now the promising use of sulfonamides to prevent recurrences is giving new impetus to preventive efforts.[17] These facts can be utilized in an organized fight to control rheumatic fever.

Organized Effort Necessary

Applying this knowledge, however, requires the proper mobilization and organization of community resources. Rheumatic fever, like tuberculosis, cannot be successfully attacked by the medical profession alone or from one angle alone. Furthermore, the difficulty frequently associated with the diagnosis of the disease suggests that expert diagnostic service be made available to the practicing physician to assist him and to encourage reporting of the disease. The tendency of the disease to recur demands that plans be developed to educate parents, teachers, social workers, and others in daily association with the child not only in good child-health care, including periodic medical supervision, but to recognize the manifestations of rheumatic activity. The prolonged and expensive care usually necessary during the active and convalescent stages of rheumatic fever implies that such care is often a community responsibility. The crippling effect of rheumatic heart disease suggests the impor-

TABLE 1.—OBSERVED AND ESTIMATED INCIDENCE OF RHEUMATIC HEART DISEASE IN SCHOOL CHILDREN IN THE UNITED STATES

Location and Date of Survey	Total School Population Examined	Rheumatic Heart Disease per 1,000 School Children
Cincinnati, 1938[7]	85,389	2.
San Francisco, 1938[8]	13,338	2.20
Louisville, 1941[9]	41,905	3.6
Philadelphia, 1937[10]	33,202	3.9
Boston, 1927[11]	119,337	4.5
Rochester, Minnesota, 1931[12]	1,328 (A)	5.6
New York City, 1931[13]	2,691 (B)	8.8

(A) ages 11–20; (B) ages 6–18.

Second Vice-President and Assistant Medical Director, respectively, of the Metropolitan Life Insurance Company.

tance of occupational guidance in certain cases. To meet these complicated needs, organized medicosocial effort is necessary.

Present Status of Organized Action

A start has already been made. In one state[18] and a few of the major cities,[19–21] heart associations have initiated rheumatic fever educational campaigns. There is a growing list of states and cities where the disease is reportable* and where case-finding surveys have been started. Some tuberculosis preventoria for children are being converted to the care of rheumatic fever victims.[22] In a few communities, cardiac consultation service for school children has been instituted.[23,24] Through special home-visiting service, several community visiting-nurse associations are aiding in preserving continuity of medical care.[25,26] These activities are promising signs of local action. All are part of a total community rheumatic-fever program. On the Federal level, the Children's Bureau, since 1939, has been assisting state agencies to develop services for children with heart disease.[27] In January, 1944, the American Heart Association began to unite the many national professional groups interested in rheumatic fever by sponsoring a conference in New York City. This was attended by some thirty delegates representing the various medical, governmental, and social organizations. At this meeting the following resolutions were adopted unanimously:

1. Because of the magnitude and importance of the rheumatic-fever problem, this conference is strongly in favor of the extension of public programs, supported by Federal, state, and local funds, for the study, prevention, and treatment of this disease. Moreover, we believe it essential that additional funds be secured from private sources for the purpose of special studies to increase basic knowledge of the disease, for professional education and for increasing public awareness of the problem.
2. In order to accomplish the purposes mentioned above, this conference recommends that a Council on Rheumatic Fever be formed under the leadership of the American Heart Association, and that this council shall include representatives of interested organizations.

Following this conference, the Board of Directors of the American Heart Association met in February, 1944, and proceeded to form a Council on Rheumatic Fever. The American Public Health Association, American Medical Association, American College of Physicians, American Academy of Pediatrics, American Rheumatism Association, National Organization for Public Health Nursing, American Nurses Association, American Hospital Association, and American Association of Medical Social Workers have named their delegates to this Council, which held its first official meeting in December, 1944.[28] But the expansion of public programs of care depends in large part upon a community's consciousness of the magnitude of its rheumatic-fever problem and its willingness and ability to shoulder its share of financial responsibility. The greatest need at the moment is a pattern for action to assist physicians and others conscious of the importance of rheumatic fever in the development of an over-all community program.

What Should Be the Points of Attack?

In searching for a guide, the similarity of many features of rheumatic fever to tuberculosis suggests that a study of the organized efforts to control tuberculosis might be profitable. One program which showed how a community could control its tuberculosis problem was the Framingham Tuberculosis Demonstration.[29] Not only was this the first comprehensive community effort to eradicate tuberculosis, but now for more than twenty years its lessons have been successfully applied over and over again in other communities. With rheumatic fever in mind, let us look at the chief features of the Framingham activity:

1. *The Magnitude of the Problem.*—It gave, for the first time, a fairly complete picture of the amount of tuberculosis actually existing in a typically American community. This is certainly the first step needed in a community program looking to the control of rheumatic fever. Before embarking on investigations to uncover the size of the rheumatic-fever problem, Dublin's[30] critical analysis of present methods of determining prevalence and incidence should be studied.
2. *Consultation Service.*—It has been said about the Framingham Demonstration that the most important of all practical contributions it made was to develop a plan for medical consultation service. Surely the difficulties associated with the recognition of rheumatic fever and frequently of rheumatic heart disease suggest that one of the great needs in this field is an expert consulting service for the practicing physician.
3. *Treatment.*—The value of adequate treatment of tuberculosis was demonstrated in Framingham. It is also necessary to demonstrate fully the importance of bed rest in the treatment of rheumatic fever and the advantages and disadvantages associated with

* The disease is now reportable in Michigan, Iowa, California, Rhode Island, Utah, Maryland, the District of Columbia, and Cincinnati, Ohio, and Chicago, Illinois.

institutional care, foster home care, and management of cases in the home

4 *Standards of Diagnosis*—As the Demonstration developed and emphasized the importance of diagnostic standards for tuberculosis, so are needed standards for the diagnosis of rheumatic fever The standardization and diagnosis of heart disease have been put on a very satisfactory basis through the efforts of the New York Heart Association and the American Heart Association But there are also needed comparable criteria which will assist the practicing physician in recognizing cases of rheumatic fever

5 *Death Certificate Analysis*—A careful analysis of death certificates for prior years by the Framingham group showed that the actual deaths from tuberculosis were 22 per cent in excess of the reported deaths from this disease As Hedley [31] has shown, analysis of vital statistics reveals that there is under reporting of deaths from rheumatic fever and rheumatic heart disease

6 *Environmental Studies*—The Demonstration emphasized the importance of the general environment as a contributor to the incidence and spread of tuberculosis It is clear from what we know about the development and spread of rheumatic fever that important environmental studies could be made as a part of any intensive study of rheumatic fever in a large community This would involve a study of the influence of housing, crowding feeding, etc , not only in homes, but schools factories, and other places where people are concentrated

7 *Health Education Activities*—These were a prominent part of the community Demonstration The work was channeled in two fields (a) measures of personal hygiene directed at the limitation of infection (b) measures which tended to promote an increased resistance to disease and which encouraged hygienic living These same principles, even with our lack of complete knowledge with respect to a causative agent in rheumatic fever and the exact mode of transmission, can be used in educating the public about the disease

The fact that tuberculosis was a reportable disease at the time of the Framingham Demonstration perhaps helped in initiating control measures Certainly reporting and registering of rheumatic fever cases are two prime objectives in a community program But reporting is not a necessary condition for initiating a community effort Community education, consultation service, development of standards of diagnosis, efforts at environmental improvement, provision of adequate facilities for treatment are all essential in a well conceived community plan Nevertheless, depending upon local circumstances, any one approach might be undertaken as the initial effort

How Are These Objectives to Be Attained?

For a long-range program, such as this must be, the initiative should come from within the community Information and technical assistance may be supplied from outside to inform and interest community leaders, but in order for the program to be accepted and supported by the community, it must be initiated and carried out by members of the community. A community rheumatic fever program involves the cooperation of many groups and individuals The physician is the ideal person to call attention to this disease and secure the help of key people in the community To illustrate what medical leadership can accomplish, we offer the description of one who has been an eye witness in the development of the community rheumatic fever program in Stamford, Connecticut [32]

"We have much to be thankful for—chiefly in the caliber of the people who planned the organization—the doctor, the president, and the executive board They were convinced of the need and set out to conquer all obstacles

"It seems that a few key people must be ready before the plan will 'take'—the vitalizing energy must come from within and the doctor is the person from whom the original plans must come Our growth which has come about by luck, good management, and mistakes, was as follows

"There was

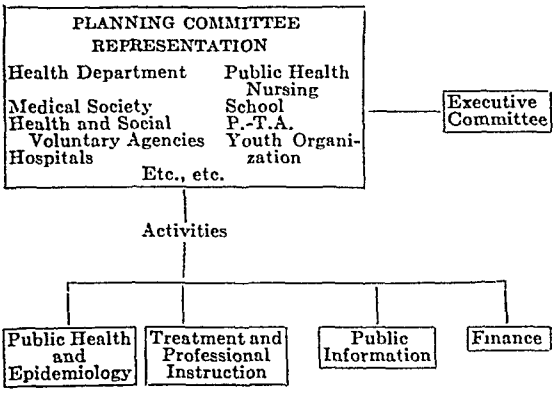
1 A physician to shape the program who was quiet, determined, and unafraid
2 A practical, wise, and vitally interested president of the Cardiac Aid, able and willing to cope with difficult situations, as they arose
3 An intensive educational program—by placing on the Cardiac Aid key people from every organization in Stamford
4 An assignment of special active duties to certain organization representatives, such as the Visiting Nurse Association and the Parent-Teachers' Association, thereby bringing information regarding heart disease to the parents from every possible source
5 A plan with the Board of Education and the school nurses so that all cases found in the school examination program could be registered with the Cardiac Aid and a home teacher provided by the School Board for home-bound children
6 An agreement with the State Crippled Children's Division for the registration of all cases having a positive diagnosis They have helped with the expense of some of the children at camp
7 An affiliation with the local Lion's Club for financial aid and advice The group in Stamford is represented by keen, enthusiastic,

and energetic businessmen with big hearts and sound heads.

8. An introduction of a bill into the State Legislature this year to make rheumatic heart disease reportable.
9. A gradual drawing-in of key people from surrounding towns to serve with the Cardiac Aid so that our field of usefulness would be widened.
10. A need for convalescent care which was not met until 'Camp Lionheart' was born. For the duration this must suffice—six weeks' care to each of thirty-six children."

In localities where a Council of Health Agencies exists or where there is any one major health agency, perhaps a tuberculosis association, such an organization may offer the machinery for initiating a community interest in the rheumatic-fever program. Certainly in directing lay and professional attention to this problem, no community agency has a greater opportunity or obligation than the local medical society. Where there is no community group in existence which might locally serve as the framework for organization, the initiative may be taken by the interested physician with the assistance of the health officer and lay community leaders. They could organize a planning committee such as is illustrated by Chart I.

CHART 1.—Suggested Committee Organization Chart



The health department representative would be the health officer or his delegate; the representatives of the medical society would probably and desirably be pediatricians and heart specialists, as well as general practitioners. There should be representatives from organizations doing family case work as well as from the department of public welfare. It would be desirable also to have nursing, education, civic, religious, business, and labor interests represented on the committee. An executive committee would probably be necessary to act for the overall planning committee in the interim periods between meetings, composed perhaps of the chairmen of the subcommittees. A general function of this committee would be to study the extent of the local problem and to report back to the agencies represented upon it. A complete committee program might be carried out through four subcommittees as shown on the chart: one on public health and epidemiology; one on treatment and professional instruction; one on public information; and a finance committee, the latter's functions being to estimate financial needs and find ways to meet these needs without developing a separate fund.

What would be the scope of such a planning committee? Space does not permit the development of all the possible activities of the committee. However, as an indication, for instance, of the "public information" activities, the objectives recently outlined by a committee of the New York Heart Association for a public-education program in New York City which began in October, 1943, in cooperation, of course, with medical and social efforts, are as follows:

1. To secure early medical care for children with signs indicating the actual or probable presence of rheumatic fever
2. To protect children who have had rheumatic fever, so far as possible, from the recurrence of attacks, and give care required for general health building
3. To develop a healthy attitude toward the handicapped child and aid him in developing a healthy attitude toward his handicap
4. To protect healthy children from infection, within the narrow limits of present-day knowledge.

This program is being carried out to a limited degree on a city-wide basis, and, at the same time, more intensively in one Health District.

Schools of medicine and of public health, of education, social work, and of nursing, are being reached in this educational effort as well as nurses, social workers, women's clubs, church groups, labor organizations, parents and teachers, and other lay groups.

The suggested organization chart and related plans may seem too ambitious for a small community. It may not have enough of a rheumatic-fever problem to justify an elaborate community organization. On the other hand, an active informed group, even in a small community, can interest the proper agencies and individuals in neighboring communities. Such action may result in several communities cooperating to form a larger operating unit. The plan might be developed, therefore, on a county or health-district basis.

Although the problems incompletely discussed are many and complex, this should not discourage community action. Begin with one phase of the problem. Again, this will depend

upon local circumstances. If a cardiac clinic for children already exists it may be the starting point.

The group interested in this can serve as a nucleus to arouse other community groups who can be brought together to serve on a planning committee. Another approach may be through the schools. A carefully conducted survey of school children to determine the incidence of rheumatic heart disease may be the means of arousing interest in a more extensive attack on the disease.

The Physician Holds the Key to Control

If the magnitude of the rheumatic-fever problem is to be disclosed and brought home to the various localities throughout the country; if there is to be intelligent action on the basis of what is known about the problem in the community; and most important, if there is to be sustained public support of the efforts to control this disease, community organization, we believe, needs to be undertaken. In this program of community action, the physician and his medical society can and must play a leading part.

Yesterday, the physician treating sick people was a lone worker. Recovery of the individual patient often hinged entirely upon the physician's own therapeutic resourcefulness. Today, in the management of such complex diseases as syphilis, tuberculosis, and rheumatic fever certain new and technical phases of diagnosis and therapy are apt to be auxiliary to the routine experience and facilities of the general practitioner. Expert laboratory and consultative aid and cooperative group professional arrangements may be more frequently necessary. Today, also, the physician depends upon many other nonmedical individuals and agencies to enable him to bring to his patient the complete galaxy of modern medical resources. And yet, as the focal point for these facilities and services, he today more than ever holds the place of leader in community organization for the control and prevention of disease.

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RED CROSS WAR FUND DRIVE STARTS MARCH 1

Area chairmen for the 1945 drive of the Red Cross War Fund in New York City were announced on January 1 by Walter L. Barber, fund chairman. The campaign will begin on March 1.

Jarvis Cromwell will be borough chairman for Manhattan. Last year he headed the special gifts committee. Mr. Cromwell will be the only borough chairman serving as such for the first time.

Mr. Barber will continue as Brooklyn chairman. The Bronx drive will be led by Raymond L. Korndorfer.

Ambrose B. Acker, president of the Chamber of Commerce of the Borough of Queens, will share the [illegible] chairmanship in Central Queens with Mrs. [illegible]

The Staten Island drive will be conducted under the cochairmanship of Ernest Miller and Mrs. Alfred Shriver, Red Cross liaison representative at Halloran General Hospital.

THE MANAGEMENT OF THE PATIENT WITH PROSTATIC URINARY OBSTRUCTION

CLARENCE G. BANDLER, M.D., F.A.C.S., and PHILIP R. ROEN, M.D., New York City

THE increasing span of life of the average individual has brought into greater prominence the treatment of the older patient with diseases peculiar to his time of life. Physicians speak more and more of geriatrics, and the patients themselves, because of various newspaper and lay-magazine features, have given more attention to their ailments and have come to the physician earlier in the course of these ailments. One problem in particular, that of the "prostate," has been the subject of recent popularization. It is for these several reasons that the urologist has had not only an increasing number of patients with urinary prostatic obstruction come under his care, but it is found that these patients are "better risk" patients—they have not permitted a long lapse of time between the onset of symptoms and the seeking of medical aid; for example, we find fewer patients with advanced renal damage from prolonged back-pressure.

Undoubtedly, this is a great factor in lowering the mortality rate for prostatic surgery, but much more credit must be given to the modern methods employed in the management of patients with enlarged prostate glands. It is the purpose of this presentation to review the steps in the management of such patients, as followed in our clinic, and to re-emphasize the value of a little-used simple technic in the preliminary drainage of the urinary bladder.

Preoperative Management

In selecting the title for this presentation, "The Management of the Patient with Prostatic Urinary Obstruction," we have been motivated by the fact that in all of surgery there is no other problem in which the entire patient must be considered more carefully rather than the specific surgical lesion. Hence, the problem involved is to be regarded not as one of a "prostate" but as that of a patient who incidentally happens to be afflicted with prostatic urinary obstruction. Because the patient with a prostatic lesion is in the more advanced decades of life, diseases such as arteriosclerosis, chronic cardiac condition, hypertension, diabetes, pulmonary states such as chronic bronchitis and empyema or asthma, must be completely recognized and treated, and their possible influence on the outcome of the operative procedure should be anticipated. The preoperative treatment of the obstructing prostate gland then resolves itself into two phases:

From the Department of Urology, New York Post-Graduate Medical School and Hospital, Columbia University.

1. Medical Preoperative Preparation.—Needless to say, a complete history and thorough physical examination are performed. In addition, laboratory tests, including a complete blood count, urinalysis, blood sugar, urea nitrogen, carbon dioxide combining power, and blood Wassermann determinations are routinely done. Evaluation of the cardiac status, including electrocardiographic study and consultation with a cardiologist (where indicated) is a necessary prerequisite for low mortality. Full cooperation of the internist is essential; when diabetes is found the patient is stabilized before surgical intervention is undertaken. Anemia is overcome by the liberal use of transfusions of whole blood or concentrated erythrocytes, depending upon individual needs.

Adequate blood-chemistry studies and renal function tests in the preoperative study of the prostatic patient have long been known and established. It is our practice, in addition to these, however, to perform excretory urography routinely on every patient. This gives more valuable information than any single study; calculi in the urinary tract or prostate may be seen; detection may be made of osteoarthritis or metastatic prostatic cancer or other conditions of the osseous system; the presence or absence of hydronephrosis or hydroureter is observed; bladder contour, cellules, diverticulae, and the size of the prostatic filling defect are determined. Not only do we secure an estimate of the functional capacity of the kidneys, but we can in general give a prognosis as to the surgical convalescence. Prompt renal function and delineation of a normal urinary tract generally presuppose an uneventful postoperative course, while delayed function with bilateral dilatation of the ureters and kidney pelvis indicates that prolonged preoperative preparation is required. Figs. 1 and 2 show the comparative status by x-ray of the upper urinary tract in a patient who was carefully prepared and operated upon successfully.

2. Urologic Preoperative Preparation.—While the patient is being studied in the fashion described above, attention is, of course, directed to the urinary problem, and we find that the cases can be divided into three distinct groups:

(*a*) Patients who require no preoperative catheterization except for the determination of residual urine. These patients are able to void, and, though presenting definite symptoms of

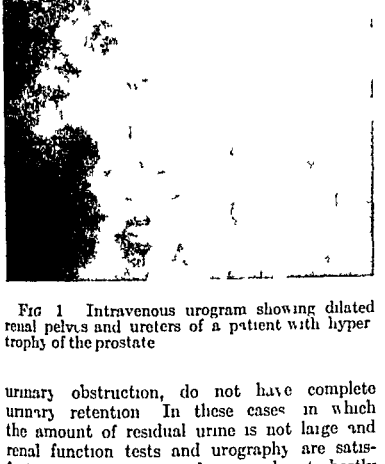


FIG 1 Intravenous urogram showing dilated renal pelves and ureters of a patient with hypertrophy of the prostate

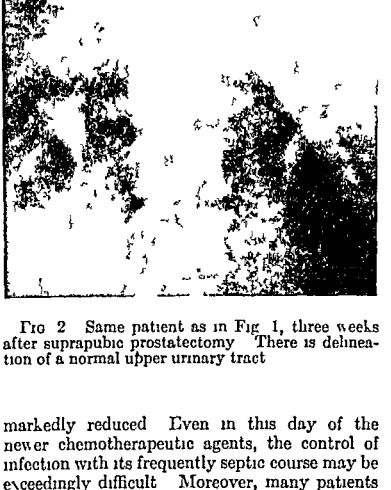


FIG 2 Same patient as in Fig 1, three weeks after suprapubic prostatectomy There is delineation of a normal upper urinary tract

urinary obstruction, do not have complete urinary retention In these cases in which the amount of residual urine is not large and renal function tests and urography are satisfactory, operation may be carried out shortly after admission to the hospital

(*b*) A second group comprises those with acute urinary retention of recent origin The preferred manner of treating such patients until the time of operation, is to employ periodic catheterization, say at eight-hour intervals When a patient arrives at the hospital, wearing an indwelling catheter which has been in place for some time, we permit such a catheter to remain *in situ* A word might be said here relative to catheterization a completely aseptic technic must be combined with extreme gentleness and the use of the proper catheters The rigid metal catheter, often in use by the physician in general practice, is mentioned, only to be condemned Where a soft rubber Coudé catheter does not pass easily, a silk woven Coudé catheter should be used with caution and with the admonition that no instrument should be introduced by force into the bladder for fear of producing a false passage in the urethra

(*c*) In the third group are those patients who have impairment of renal function, as demonstrated by elevation of the blood urea nitrogen, and the presence of an enlarged, chronically distended bladder In such cases a prolonged period of drainage is required, and these cases are ideally suited for the procedure of suprapubic trocar cystostomy The risk of infection (epididymitis, urethritis, cystitis, and pyelitis) resulting from the presence of an indwelling catheter is very great, and by eliminating such a possibility, the mortality in prostatic surgery can be markedly reduced Even in this day of the newer chemotherapeutic agents, the control of infection with its frequently septic course may be exceedingly difficult Moreover, many patients cannot tolerate an inlying catheter Open suprapubic cystostomy is definitely undesirable for routine use and we have, therefore, adopted another method which is eminently more satisfactory than the inlying catheter or open cystostomy This consists of suprapubic puncture of the bladder by trocar and cannula

We are deeply indebted to Dr William E Lower and two of his associates, Dr Charles C Higgins and Dr William Engel, of the Cleveland Clinic, who introduced us to this technic and taught its use The instrument employed (*v* 1) is Dr Lower's modification of his original model, and is as yet unobtainable commercially However, various types of trocars, such as are found in the usual surgical armamentarium, are applicable for suprapubic cystostomy

Suprapubic puncture of the bladder, employing a trocar and catheter, has been employed occasionally for many years, but its widespread use has been handicapped by the fear of penetrating the peritoneum or a loop of bowel No such complication has been seen in several thousand such procedures performed by Lower, Higgins, and Engel, nor have there been any mishaps in our experience (about 200 cases) There is no such danger, provided that there is adequate distention of the bladder and it is palpable above the symphysis pubis

This method of suprapubic drainage has been found especially advantageous when a long period of time is necessary for adequate prepara-

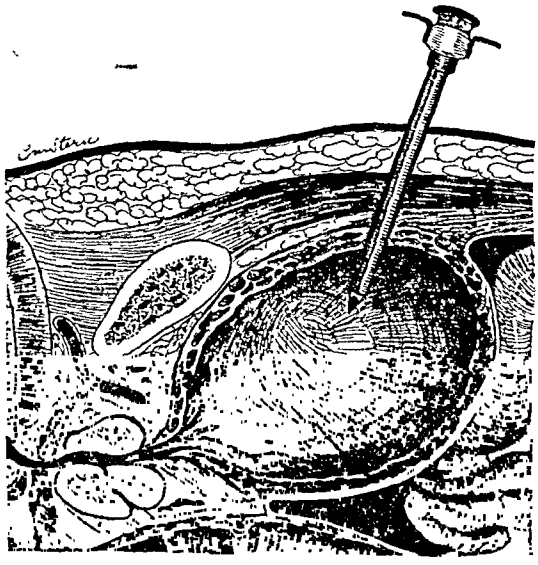


FIG. 3. Position of trocar and cannula in relation to pubis and peritoneum after the instrument has been plunged into the distended bladder.

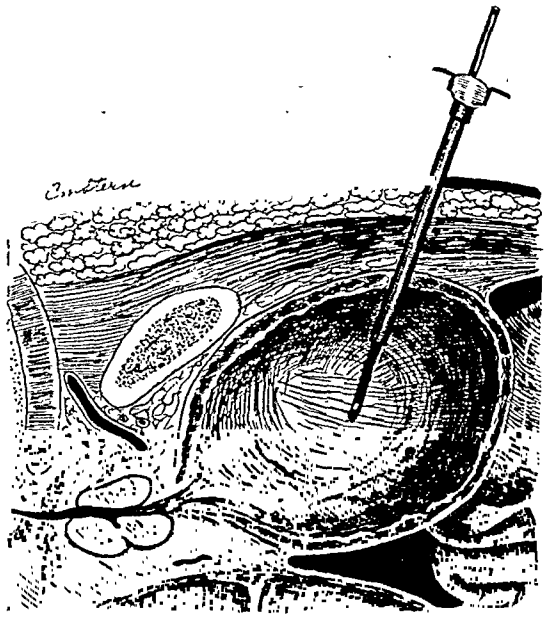


FIG. 4. After the trocar is removed, a catheter is threaded through the cannula into the bladder.

tion of the patient for operation. The catheter is easily cared for, unclamped whenever emptying of the bladder is required, and, moreover, there is no urinary leak about the catheter. It is also ideally suited for those cases in which permanent suprapubic bladder drainage is necessary and is a boon in the care of patients with paralysis of the bladder due to spinal cord disease or injury. This procedure should also be employed in the armed forces when spinal-cord injuries necessitate transportation for great distances before proper reparative surgical measures may be instituted.

On removal of the suprapubic catheter, almost miraculously, one sees the closing of the fistulous tract within three or four hours, and closure is rarely delayed longer than forty-eight hours even in those cases in which the catheter has been in place for a long time.

The virtues and advantages of this method cannot be too loudly extolled, and it deserves wider recognition and use.

The technic of the procedure is relatively simple (see Figs. 3, 4, 5). Local infiltration anesthesia or, if so desired, intravenous sodium pentothal is employed. The patient is placed in slight Trendelenburg position and the bladder is distended by an urethral catheter, if it is not already distinctly palpable. The suprapubic region is aseptically prepared. A long spinal needle is inserted at a point 2 to 3 cm. above the symphysis pubis, and advanced into the bladder. When the latter is entered, fluid escapes through the needle at once. A 1-cm. transverse incision is then made in the skin at this site, and the underlying deep fascia is incised longitudinally. The trocar and cannula are inserted through the skin incision and plunged into the bladder with a rotating motion. The trocar is removed and a No. 18 F. soft catheter is immediately passed into the bladder through the cannula, which is then removed. The catheter is fastened into place with a single silk suture passing through the skin and the catheter itself. Replacement of this catheter by a Foley self-retaining catheter may be made on the fourth or fifth day following suprapubic trocar puncture.

The instrument is also adapted for the use of a cystoscope (No. 18 F. McCarthy cystourethroscope, or the No. 18 F. McCarthy panendoscope), and visualization of the bladder may be carried out through the instrument at the time of trocar cystostomy or may be done subsequently when the fistulous tract is well established. Such a procedure is of inestimable aid when stricture of the urethra or intraurethral prostatic intrusion precludes cystoscopy through the urethra.

Routine urologic preoperative management of the patient also includes cystoscopic examination. The McCarthy panendoscope is employed regularly. This permits, primarily, the determination of size of intraurethral and intravesical enlargement so that the proper surgical method may be appropriately chosen. The exact type of prostatic enlargement, median bar, lateral lobe hypertrophy, or various types of lateral and median lobe hypertrophy, is revealed. Such complicating intravesical conditions as calculus, tumor, diverticulum, and

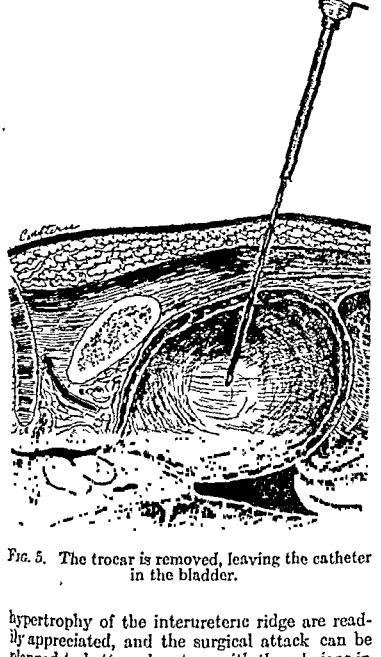


FIG. 5. The trocar is removed, leaving the catheter in the bladder.

hypertrophy of the interureteric ridge are readily appreciated, and the surgical attack can be planned to better advantage with these lesions in mind. We do not feel, as others have stated, that preoperative cystoscopy is unnecessary or undesirable because of the potential danger of infection. It is our opinion that every patient should have cystoscopic examination preoperatively, for when we ascertain exactly what problems are involved, we can better plan the surgical procedure.

The Operative Procedure

This procedure depends on the various factors discussed above, and particularly on the size of the obstructing gland. It is not our purpose here to enter into debate as to the relative merits of the three methods employed, namely, the transurethral, suprapubic, and perineal approaches. Suffice it to say that approximately 80 per cent of all of the prostatic surgery done at this clinic is performed transurethrally. As experience has increased, the safety of this operation and the completeness of the resection have also increased. This method also reduces the number of days of confinement to bed, thus further lowering the mortality rate. We shall probably see an increase in this type of surgery, for, as Kretschmer has written, "the older and feebler they are, the more justification there is for transurethral resection." With respect to open surgery when such is indicated by the size of the prostate gland or by complicating factors such as tumor or diverticulum, we prefer suprapubic prostatectomy.

Routine vasectomy is not practiced when either suprapubic or transurethral surgery is employed, for the incidence of epididymitis in our experience has been so low that such a procedure is not essential.

In those cases in which preliminary suprapubic trocar puncture has been employed, the suprapubic catheter, together with the urethral catheter, serves as a means of through-and-through constant bladder irrigation by the drip method following the procedure of transurethral prostatic resection. Where suprapubic prostatectomy is done, this preliminary drainage method does not obliterate tissue planes, as occurs with open suprapubic cystostomy, and this approach and suture of layers is as though one were performing one-stage prostatectomy.

Carcinoma of the prostate presents a special problem which must be considered separately. Total perineal prostatectomy undoubtedly is the surgical method of choice for carcinoma of the prostate when the prostate can be entirely removed. In most cases, however, when the patient is first seen by the urologist, complete surgical removal is a technical impossibility because of the invasion of the periprostatic tissues by the carcinomatous mass. In this event, when obstructive urinary symptoms and findings are present, transurethral resection and bilateral orchiectomy are indicated. When obstructive urinary symptoms and residual urine are absent, bilateral orchiectomy alone should be done.

Anesthetic agents used in these surgical procedures are very important, for the proper anesthetic reduces the operative risk, particularly in "poor risk" cases. Low-spinal anesthesia is the preferred agent for transurethral resection, though caudal anesthesia may be employed. Where suprapubic prostatectomy is done, cyclopropane, in our experience, has produced the least disturbance in the patient's status, especially where cardiac disability exists, but, of course, this inhalant gas must be given by a skilled, trained anesthetist. Pentothal sodium may also be used in selected cases for either transurethral or open prostatic surgery.

Postoperative Care

Postoperative care includes the restoration of blood lost at the operating table. Numerous recent studies have disclosed that even during

the resection of a small prostate gland, 250 to 500 cc. of blood are lost, and in the older age group this is a serious matter. Restoration by transfusion is employed almost routinely. Adequate fluid intake (3,000 cc. daily) is achieved by giving parenteral fluids when necessary. The early use of the sulfonamides and penicillin in those cases in which the infecting organism is susceptible to the latter drug enables us to more readily control the sepsis which was the bane of the older urologic surgeon, and aids in decreasing the mortality rate. We must also emphasize the early removal of the indwelling catheter, for this factor alone, as previously discussed, is often instrumental in the onset of urinary infection.

It is, moreover, our practice to permit our patients to be out of bed at the earliest possible moment consistent with the surgical procedure. Such a measure is especially necessary in the older age group, in which prolonged bed rest may lead to hypostatic pulmonary congestion and pneumonia, or phlebitis and embolism.

In conclusion, we can readily state that there is a distinctly better outlook for the patient with an obstructing prostate gland who requires surgery, and he can rest assured that with individualization of his problem, with excellent preoperative attention to *all* of his physical disabilities, and with careful choice of the surgical procedure to be followed, his chances of surviving the operation are excellent.

Summary

1. The treatment of the patient with prostatic urinary obstruction is delineated.

2. Complete preoperative preparation demands not only attention to the urinary obstruction but complete evaluation of the entire patient, including his cardiac, pulmonary, and renal status.

3. Description of a method for suprapubic trocar cystotomy is given, its importance is stressed, and a plea is made for its wider use.

4. The methods of surgical attack and postoperative care are briefly discussed in relation to the task of minimizing the operative mortality.

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DIRECTOR ASKS DOCTORS' AID FOR SOCIAL HYGIENE DAY

Dear Doctor:

Once again I write to invite your cooperation in the ninth annual celebration of Social Hygiene Day on February 7, 1945. The enclosed leaflet explains the general aims of this year's meetings. As physicians we have a special responsibility for the protection of health and the prevention of venereal diseases. It is chiefly by constant vigilance and by finding and treating the sources of infection that we can contribute to lowering rates, while expanding programs on the moral, social, and educational sectors are providing effective preventive measures.

The medical and public-health procedures which, if faithfully applied, will check any increase in these infections and reduce their prevalence are known to us. But unless the public knows enough to seek a physician's advice and care when the possibility of infection exists, there is little that we can do even with our present improved methods of diagnosis and treatment. Instruction of the public, therefore, is a most essential procedure.

I hope that you and your society will be able to help in this educational undertaking in the following ways:

1. By giving suitable publicity to Social Hygiene Day so that members of your society may know about it.

2. By accepting invitations to address lay audiences or to give radio talks on subjects relating to syphilis and gonorrhea.

3. By counseling with leaders of lay organizations who may seek your advice and aid.

4. By joining in the sponsorship of local or regional Social Hygiene Day meetings.

5. By calling the attention of your Woman's Auxiliary to the opportunity for service connected with Social Hygiene Day.

If, in connection with any of the above suggested activities, the American Social Hygiene Association can be of assistance, I hope that you will write to us.

Yours sincerely,
CHARLES WALTER CLARKE, M.D.,
Executive Director

COURSES OPEN AT MT. SINAI HOSPITAL

Mount Sinai Hospital in affiliation with Columbia University will offer a supplementary course in gastroenterology and another in bedside clinics in diseases of the liver and gallbladder, the classes to be held at Mt. Sinai on Wednesdays from February 7 to March 28. Inquiries and applications should be addressed to the Secretary of Medical Instruction at the Hospital.

THE ELECTROFIT IN DEPRESSION—COMPARISON OF HOSPITAL AND PRIVATELY TREATED PATIENTS

DAVID J. IMPASTATO, M.D., JOHN FROSCH, M.D., RENATO J. ALMANSI, M.D., and S. BERNARD WORTIS, M.D., New York City

THIS work was undertaken to study (1) The effect of the electrofit on ambulatory patients treated in private practice and a group of patients treated while in residence in the Psychiatric Division of Bellevue Hospital; (2) the effect of sodium amytal on the electrofit; and (3) the effect of a high or increasing convulsive threshold on the therapeutic outcome.

Material and Procedures

Patients.—Group A (Table 1) was treated in Bellevue Hospital. These patients received 0.3 Gm. sodium amytal intravenously from two to fifteen minutes prior to the electrofit. Most of these patients received treatment two to three times weekly, while a small number received treatment six times a week. All had pre- and posttreatment x-rays of the thoracic spine. Group B (Table 2) was treated at Columbus Hospital as ambulatory patients. These subjects were given sodium amytal only if they became much disturbed after the first convulsion. Most of them received treatment twice weekly. A few were treated three or four times weekly. They had x-ray of the thoracic spine only if they complained of high-back pain.

Treatments were usually given to both groups in the morning before breakfast. The patients' backs were hyperextended on the lower half of the Gatch bed, and during the convulsion were held firmly by three or four attendants. We attempted to give the patient a grand mal convulsion at each treatment. To achieve this, multiple electric stimulation was given when necessary.

Sixty-three patients of each group suffering with depression are compared for therapeutic results.

One hundred and ten cases of each group suffering from various psychoses are compared for fracture incidence.

Results

Comparison of the Effect of the Electrofit on Private Patients Receiving Ambulatory Treatment, and on Hospital Patients Receiving Treatment While in Residence at Bellevue Hospital.—Summary of our results in the private ambulatory group shows that 45 of 63 patients recovered or were much improved, 16 were improved, and 2 were unimproved shortly after (within one month) treatment—immediate results.

Follow-up or late results of this group (two to forty months after treatment) showed: recovered or much improved, 47; improved, 7; and unimproved, 9. Some patients shifted from one group to another during the follow-up period. Of the original 45 patients who recovered or were much improved immediately following the treatment, 4 became moderately worse and shifted to the improved group, and 3 relapsed and shifted to the unimproved group. Of the original 16 patients who improved 9 became better and shifted to the recovered and much improved group, and 4 relapsed and shifted to the unimproved group. The greatest shifts occurred in the improved group.

In the Bellevue-treated patients the immediate results were: recovered or much improved, 41; improved, 17; unimproved, 5. These results are not quite as good as the immediate results in the private group. Of the Bellevue group we have follow-up findings on 24 patients. Of these 24 patients there were originally 18 recovered or much improved, and 6 improved. After a two- to ten-month period there were 13 recovered or much improved; 4 improved; and 7 unimproved. These results are definitely poorer than we obtained in the ambulatory group.

It appears that the private ambulatory patient responds better to the electrofit than the clinic patient. The following may be pertinent factors for this finding:

(*a*) The relatively better economic stability of the patient.

(*b*) The continued solicitation, interest, and care by the relatives.

(*c*) The possible better physician-patient relationship based on freedom of choice by patient.

(*d*) Since the ambulatory patient gets well while at home, there is no need for subsequent home readjustment. Such readjustment must be achieved by the hospital patient at the end of the treatment.

(*e*) The ambulatory patients might be considered as suffering from milder forms of depression, as they do not include those who are severely depressed, resistive, or actively suicidal.

Read at the Annual Meeting of the Medical Society of the State of New York, New York City, May 9, 1944.

From the Psychiatric Department of Bellevue Hospital and the New York University Medical College, and the Neuropsychiatric Service of Columbus Hospital.

TABLE 1. GROUP A (TREATED IN BELLEVUE HOSPITAL)

No.	Age	Sex	Diagnosis	Duration in Months	Previous Attacks	No. Treatments per Week	No. Treatments	Petit Mal	Grand Mal	Recovered or Much Improved	Improved	Unimproved	Months After Treatment	Recovered or Much Improved	Improved	Unimproved	Comments
1	37	F	Reactive depression	5	0?	3	11	4	7	x	..	..	..	..	..	..	
2	42	F	Involutional depression	1	0?	3	16	3	13	x	..	..	..	..	..	x	
3	43	F	Involutional depression	6	0?	3	11	1	10	x	..	..	2	..	..	x	
4	54	F	Agitated depression	1	0?	3	26	6	18	x	..	..	7	x	..	..	
5	24	M	Schizophrenic depression	60	0?	3	12	3	9	..	x	..	6	..	x	..	
6	45	M	Reactive depression	5	0?	3	10	2	8	x	..	..	14	x	..	..	
7	40	M	Manic depression	4	Yes?	3	11	3	8	x	..	..	..	..	..	..	
8	51	F	Involutional melancholia	4	?	3	22	3	19	..	x	..	2	..	..	x	Relapsed 2 months later—made suicidal attempt
9	52	F	Involutional melancholia	1	?	3	11	2	9	x	..	..	..	..	..	..	
10	32	F	Manic depression	1	1	3	11	2	9	x	..	..	..	..	..	..	
11	46	F	Manic depression	14	?	3	16	5	11	x	..	..	5	..	..	x	Relapsed 5 months later—admitted in manic state
12	52	F	Involutional melancholia	2	0	3	9	2	7	x	..	..	..	..	..	..	
13	49	F	Involutional melancholia	3	?	3	11	2	9	x	..	..	12	x	..	..	
14	53	F	Manic depression	13	2	3	25	6	19	x	..	..	10	..	x	..	
15	50	M	Manic depression	16	2	3	13	10	3	x	..	..	..	..	..	..	
16	44	F	Involutional melancholia	4	0?	3	7	3	4	x	..	..	7	x	..	..	
17	58	F	Manic depression	3	?	3	15	7	8	x	..	..	5	..	x	..	
18	44	F	Manic depression	4	?	3	5	1	4	x	..	..	11	..	..	x	Relapsed 11 months later, but recovered spontaneously
19	25	F	Manic depression	6	?	3	16	2	14	x	..	..	10	x	..	..	
20	53	F	Involutional melancholia	3	?	3	20	10	10	x	..	..	6	..	..	x	Relapsed. Received second series ot treatments—much improved
21	51	F	Involutional melancholia	4	?	3	15	4	11	x	..	..	..	..	..	..	
22	24	F	Postpartum depression with depersonalization	5	?	3	21	0	21	..	..	x	..	..	..	..	Patient improved during treatment but relapsed a few days later and was committed
23	30	F	Psychotic depression	24	0	3	5	2	3	..	x	..	6	x	..	..	Had received previous electroshock ambulatory treatment with benefit
24	22	M	Schizophrenic depression	?	?	3	11	0	11	x	..	..	3	x	..	..	
25	36	M	Reactive depression?	7	?	3	11	3	8	..	x	..	..	..	..	..	
26	29	F	Manic depression	12	?	3	16	1	10	x	..	..	..	..	..	..	
27	43	F	Involutional melancholia	5	?	3	8	1	7	x	..	..	3	..	..	x	Patient relapsed 3 months later. Then received fifteen daily treatments and was much improved. Relapsed 2 months later—received third series daily of eleven treatments and became very confused. Cleared up in 10 days and recovered
28	38	F	Manic depression	5	?	3	9	1	8	x	..	..	..	..	..	..	
29	44	F	Involutional melancholia	6	?	3	12	6	6	x	..	..	4	..	x	..	
30	47	F	Involutional melancholia	3	?	3	15	4	11	x	..	..	..	..	..	..	Received 2 series of treatments
31	45	F	Involutional melancholia	4	?	5	7	0	7	x	..	..	7	x	..	..	
32	32	F	Manic depression	3	?	3	10	5	5	x	..	..	..	..	..	..	

TABLE I GROUP A (TREATED IN BELLEVUE HOSPITAL) *(Continued)*

No	Age	Sex	Diagnosis	Duration in Months	Previous Attacks	No Treatments per Week	No Treatments	Petit Mal	Grand Mal	Recovered or Much Improved	Improved	Unimproved	Months After Treatment	Recovered or Much Improved	Improved	Unimproved	Comments
33	46	M	Involutional melancholia	4	?	3	5	1	4			x					
34	43	M	Involutional melancholia	2	?	3	9	0	9	x			6	x			
35	47	M	Manic depression	3	?	3	6	1	5	x							
36	45	F	Involutional melancholia	60	?	3	5	1	4	x							
37	40	F	Involutional melancholia	4	?	3	8	1	7		x		2	x			
38	50	M	Involutional melancholia	2	?	3	10	1	9		x						
39	33	F	Manic depression	2	?	3	12	2	10		x		5	x			Patient became hypomanic at end of treatment Recovered fully later
40	33	M	Manic depression	?	?	3	9	3	6	x							
41	56	M	Involutional melancholia	6	?	3	13	0	13			x					Patient became confused and was committed
42	60	M	Involutional melancholia	6	?	3	6	1	5	x							
43	35	M	Manic depression	15	0	3	10	0	10		x		2			x	
44	51	F	Manic depression	6	?	3	11	4	7	x							
45	41	M	Schizophrenic depression	3	0	3	19	3	6		x						
46	53	M	Involutional melancholia	?		3	10	3	7			x					Patient recovered at end of treatment but relapsed within a month Was then given 18 daily treatments at end of which he became confused and excited and was committed
47	41	M	Involutional melancholia	3	0	3	5	0	5	x							
48	14	F	Manic depression	5	1	3	12	0	12			x					
49	51	F	Manic depression	2	1	3	17	6	11		x						
50	35	F	Schizophrenic depression	35	0	3	20	1	19	x			3	x			
51	20	F	Manic depression	3	?	3	12	7	5		x						
52	28	F	Reactive depression	7	?	3	13	2	11		x						
53	40	M	Involutional melancholia	8	?	6	13	3	10	x							Very confused at end of daily treatments
54	29	M	Schizophrenic depression	5	?	6	10	2	8	x							Feelings of unreality at end of daily treatment
55	25	M	Schizophrenic depression	7	?	6	8	1	7	x			2	x			Feelings of unreality 1 month after treatment
56	38	F	Recurrent depression	12	?	6	5	0	5	x							Daily treatment
57	18	F	Schizophrenic depression	14	?	6	11	2	9		x						Daily treatment
58	23	M	Schizophrenic depression	?	?	6	11	2	9		x						Had previous electroshock treatment with temporary improvement Had previous fracture of spine Did not have any new complication Daily treatment
59	20	F	Psycho neurotic depression	?	?	6	7	0	7	x							Also had a tic of the face which disappeared for a week after daily treatments
60	41	M	Involutional depression	6	?	6	7	2	5			x					Daily treatments
61	20	M	Schizophrenic depression	3	2	6	9	1	8			x					Daily treatments Became assaultive Treatment was stopped One month later slight improvement. Had received insulin another time
62	16	F	Manic depression	12	1	6	25	1	24			x					Daily treatments No gross memory changes
63	39	M	Schizophrenic depression	6	?	6	10	0	10			x					

TABLE 2. GROUP B (TREATED AT COLUMBUS HOSPITAL AS AMBULATORY PATIENTS)

No.	Age	Sex	Diagnosis	Duration in Months	Previous Attacks	No Treatments per Week	No. Treatments	Petit Mal	Grand Mal	Recovered or Much Improved	Improved	Unimproved	Months After Treatment	Recovered or Much Improved	Improved	Unimproved	Comments
1	19	M	Schizophrenic depression	12	0	2	35	2	33	x	..	..	8	x	..	..	
2	43	F	Involutional melancholia	6	0	2	10	4	6	x	..	..	36	x	..	..	
3	39	M	Manic depression	6	0	2	5	2	3	x	..	..	18	x	..	..	
4	21	F	Manic depression	1	1	2	8	0	8	x	..	..	4	x	..	..	
5	27	F	Schizophrenic depression	..	..	2	13	1	12	x	..	..	11	x	..	..	
6	33	F	Manic depression	6	1	2	13	4	8	x	..	..	11	x	..	..	
7	19	M	Schizophrenic depression	2	0	2	19	1	18	..	x	..	11	x	..	..	
8	26	F	Schizophrenic depression	5	0	2	12	1	11	x	..	..	12	x	..	..	
9	36	F	Schizophrenic depression	1	0	2	10	3	7	..	x	..	3	..	..	x	
10	31	M	Manic depression	31	0	2	14	4	10	x	..	..	41	x	..	..	
11	35	M	Schizophrenic depression	12	0	2	8	1	7	..	x	..	2	..	x	..	
12	43	F	Involutional melancholia	15	0	2	11	8	3	x	x	..	5	x	..	..	Became so fearful of treatment that she swallowed tweezer
13	27	M	Manic depression	5	0	2	3	0	12	x	..	..	..	x	..	..	
14	66	F	Involutional melancholia	10	0	2	12	0	6	x	..	..	..	x	..	..	
15	38	F	Manic depression	2	3	2	6	0	5	x	..	..	..	x	..	..	
16	39	F	Manic depression	4	0	2	5	0	4	..	x	..	5	x	..	..	
17	26	M	Psycho-neurotic depression	8	0	2	4	0	4	..	x	..	..	x	..	..	
18	36	F	Depression with depersonalization	18	1	2	15	5	10	..	..	x	..	..	..	x	
19	36	F	Manic depression	8	4	2	8	1	7	x	..	..	9	..	x	..	
20	48	F	Involutional melancholia	16	0	2	8	1	7	..	x	..	17	..	x	..	Had received previous electrofit treatment with benefit
21	19	M	Psycho-neurotic depression	6	0	2	3	0	3	x	..	..	27	x	..	..	
22	40	F	Manic depression	1	1	2	16	1	15	..	x	..	7	x	..	..	
23	51	..	Involutional melancholia	1	3	3	14	0	14	..	x	..	5	x	..	..	
24	37	F	Manic depression	8	1	2	5	1	4	x	..	..	16	..	..	x	Relapsed. Received another course and recovered again. Well 16 months
25	47	M	Psycho-neurotic depression	12	0	2	8	0	8	x	..	..	4	x	..	..	
26	32	F	Manic depression	2	1	2	11	2	9	x	..	..	5	..	x	..	Relapsed. Received one more treatment and was improved 6 months
27	45	M	Reactive depression	2	0	2	6	2	4	x	..	..	5	x	..	..	
28	26	M	Manic depression	6	0	2	7	5	2	x	..	..	26	x	..	..	
29	33	F	Manic depression	6	1	2	5	0	5	x	..	..	28	x	..	..	
30	48	M	Manic depression	3	1	2	10	0	10	..	..	..	3	x	..	..	
31	24	M	Manic depression	4	2	2	7	1	6	..	x	..	7	x	..	..	
32	57	F	Manic depression	36	2	2	14	0	14	..	x	..	18	x	..	..	
33	53	M	Involutional melancholia	6	0	2	7	1	6	x	..	..	11	x	..	..	

TABLE 2 GROUP B (TREATED AT COLUMBUS HOSPITAL AS AMBULATORY PATIENTS) *(Continued)*

No	Age	Sex	Diagnosis	Duration in Months	Previous Attacks	No Treatments per Week	No Treatments	Petit Mal	Grand Mal	Recovered or Much Improved	Improved	Unimproved	Months After Treatment	Recovered or Much Improved	Improved	Unimproved	Comments
34	42	F	Involutional melancholia	5	0	2	14	0	14		x		6		x		
35	31	F	Manic depression	Many		2	4	0	14	x			11		x		Relapsed
36		F	Involutional melancholia			2	6	1	5	x			25	x			
37	36	F	Manic depression	?	4	2	10	0	10	x			5		x		Relapsed Received a few metrazol treatments and has been well for 9 months
38	29	F	Manic depression	29	0	2	9	0	9	x			3	x			
39	21	F	Manic depression	38	0	2	9	2	7	x			24	x			
40	48	F	Involutional melancholia	6	0	2	8	0	8	x			19	x			
41	27	F	Reactive depression	1	0	2	15	1	14	x			16	x			
42	46	F	Involutional melancholia	?	0	2	8	0	8	x			14	x			
43	29	F	Manic depression	18	0	2	8	0	8	x			3	x			
44	42	M	Manic depression	24	0	2	19	5	14		x		26	x			
45	41	F	Involutional melancholia	6	0	2	8	0	8	x			3	x			
46	44	F	Manic depression	4	1	2	11	2	9	x			3	x			
47	37	F	Manic depression	3	2	2	8	2	6	x			4	x			
48	25	F	Manic depression	4	0	2	8	0	8	x			3	x			
49	42	F	Manic depression	6	3	2	15	2	13	x			15		x		Replaced 1 month later Second series—much improved
50	28	F	Manic depression	1	1	2	6	0	6	x			4	x			
51	33	F	Manic depression	3	3	2	4	0	4	x			4	x			
52	21	F	Reactive depression	6	0	2	8	0	8	x			3	x			
53	43	F	Involutional melancholia	6	0	2	6	2	4	x			12	x			Transitory weakness of left leg posterebral
54	58	M	Manic depression	6	2	1	13	1	12	x			6	x			
55	36	F	Manic depression	4	1	2	8	0	8	x			2	x			
56	48	F	Involutional melancholia	3	0	2	12	3	9		x		2			x	Remained well only a few weeks Had right-sided weakness after last treatment
57	23	F	Manic depression	4	1	2	3	1	2	x			17	x			
58	50	F	Involutional melancholia	4	0	2	7	0	7	x			10		x		Well up to recently Now has occasional crying spells
59	46	F	Involutional melancholia	11	2	6	0	6		x			4	x			
60	24	F	Schizophrenic depression	4	0	2	14	1	13	x			40	x			
61	53	M	Manic depression	12	1	3	7	2	5		x		40			x	Relapsed 20 months after treatment Received a few more treatments and recovered again
62	37	M	Manic depression	2	4	2	10	1	9		x					x	Recovered a short time after treatment but relapsed subsequently
63	52	F	Psycho neurotic depression	72	0	2	9	2	7			x	20			x	Following treatment she became worse had to be hospitalized Had unilateral cordotomy for relief of spasm of vagina and rectum without success

TABLE 3.—Electrofit. Pre- and Postconvulsive Blood Pressure: Readings With and Without Sodium Amytal

A. Without Sodium Amytal

Patient	Preconvulsion	½ Min. Postconvulsion	1½ Min. After	5 Min. After
1	Nov. 29, 132/80	142/90	132/80	128/70
1	Dec. 1, 140/90	180/100	168/80	122/70
1	Dec. 5, 136/100	150/90	180/100	130/90
2	120/70	110/60	120/70	110/70
3	180/100	200/110	....	240/100

B. With Sodium Amytal

Patient	Before Amytal	After Amytal	½ Min. Postconvulsion	1½ Min. After	2½ Min. After	4 Min. After	7½ Min. After
4	118/78	110/70	140/80	140/64	120/80	118/70	110/70
5	132/98	110/70	130/70	180/92	140/80	130/80	110/70
6	180/100	130/90	90/70	140/90	140/80	136/80	120/90
7	320/150	216/110	after a petit mal 230/140				

The Use of Sodium Amytal Intravenously as an Adjunct to Electrofit Therapy

Intravenous sodium amytal, 0.3 Gm., and occasionally 0.5 Gm., was given from two to fifteen minutes prior to the electrofit to all of the Bellevue patients. The purpose of the administration of this drug is to:

1. Reduce the fracture rate, especially of the thoracic region. We have given sodium amytal intravenously to 110 patients at Bellevue Hospital. These were carefully checked with x-rays of the thoracic spine before treatments were begun, and again at the end of the treatments. None of these patients sustained fractures. Out of the last 110 privately treated patients who did not receive sodium amytal, 3 sustained fractures of the thoracic vertebrae. Inasmuch as we x-rayed only those who complained of high-back pain, the fracture rate may possibly be a little higher than the 3 reported. We realized that the group of 110 amytal-treated patients with no fractures is too small to draw definite conclusions from.

2. Reduce the apprehension of the patient prior to treatment. Fear of the treatment in electrofit therapy exists in a mild degree in about 50 per cent of the cases. It is nowhere as great as the fear expressed in metrazol convulsive therapy. Fear in electrofit therapy is not caused by any unpleasant experience felt during the treatment, for the patient has no memory whatsoever of treatment, but to the unpleasant thought of becoming unconscious.

There is a small group of patients, mostly extremely agitated and depressed, who resist any attempt to help them in any way whatsoever. They naturally also resist electrofit therapy.

In both of these groups the fear or resistiveness is immediately overcome by intravenous sodium amytal and they then submit to treatment without any difficulty.

3. Prevent the postconvulsive motor restlessness. Following electrofit therapy from 20 to 30 per cent of the patients show motor restlessness varying in intensity from tossing about in bed to furor reactions, during which they are extremely assaultive and destructive. These reactions occur after the convulsion while the patient is in the twilight state, just before regaining full awareness. During this abnormal behavior, which usually lasts from one to two minutes, the patient, personnel, and property may be injured. Later the patient has no recollection of his behavior.

Once the patient has exhibited postconvulsive abnormal behavior he will most likely show it on subsequent treatments.

The patient who has received sodium amytal does not regain consciousness after the convulsion, but goes into a sleep lasting from ten minutes to hours, and upon awakening behaves in a normal manner.

4. Reduce the blood pressure, thus making it possible to treat hypertensives with no added risk.

Sodium amytal temporarily lowers the blood pressure from 10 to 20 mm. in normal individuals and up to over 100 mm. in advanced hypertensives. We have found that the blood pressure rises from 0 to 50 mm. of mercury after a convulsion. This rise usually begins a half minute after the end of the clonic phase, reaches its maximum in one and one-half to two minutes, and returns to normal in three to five minutes. In hypertensives given sodium amytal the post-treatment blood pressure hardly ever surpasses the preamytal blood pressure. Table 3 gives a few readings of pre- and post-convulsive blood pressures, with and without sodium amytal.

5. In addition to the advantages outlined above, the administration of sodium amytal is time-saving for the shock-team personnel, especially when a large number of patients are to be treated over a given time, as the patient falls

asleep immediately after the treatment and other patients can be brought in and treated.

Effect of a High or Increasing Convulsive Threshold on the Curative Process

It has been said by some workers that an initially high convulsive threshold or an increasingly higher threshold as the treatment progresses is a good prognostic sign. We have not found this to be the case with our material. Regarding convulsive thresholds it may be stated that in general they are low in young patients and increase with age, being highest in elderly women. There are many exceptions to this general trend. These findings, however, bear no relation to the prognosis of the patient's illness.

Conclusions

1. Privately treated ambulatory patients seem to respond better to electrofit therapy than do clinic patients treated in hospital residence. The reason for this has not been established A number of possible pertinent factors are mentioned.

2. In 110 patients who received intravenous sodium amytal prior to the electrofit, none sustained a fracture of the vertebrae.

3. We have not found an initially high or a progressively increasing convulsive threshold a good prognostic sign. In our opinion this bears no relation to the therapeutic result.

4. We strongly recommend sodium amytal as an adjunct in electrofit therapy.

Competition for Prize Essays

The Merrit H. Cash Prize and the Lucien Howe Prize will be open for competition at the next Annual Meeting of the Medical Society of the State of New York.

The Lucien Howe Prize of $100 will be presented for the best original contribution on some branch of surgery, preferably ophthalmology. The author need not be a member of the Medical Society of the State of New York.

The Merrit H. Cash Prize of $100 will be given to the author of the best original essay on some medical or surgical subject. Competition is limited to the members of the Medical Society of the State of New York, who at the time of the competition are residents of New York State.

The following conditions must be observed:

Essays shall be typewritten or printed with the name of the prize for which the essay is submitted, and the only means of identification of the author shall be a motto or other device. The essay shall be accompanied by a sealed envelope having on the outside the same motto or device and containing *the name and address of the writer.*

If the Committee considers that no essay or contribution is worthy of a prize, it will not be awarded.

Any essay that may win a prize automatically becomes the property of the Medical Society of the State of New York "to be published as it may direct."

All essays must be presented not later than February 1, 1945, and sent to the Chairman of the Committee on Prize Essays of the Medical Society of the State of New York, 292 Madison Avenue, New York 17, New York.

CHAS. GORDON HEYD, M.D., *Chairman*
Committee on Prize Essays

SURGICAL TREATMENT FOR DYSFUNCTION OF THE TEMPOROMANDIBULAR JOINT

ROBERT THORNTON PERCIVAL, Maj., (MC), USA, Brooklyn

THIS is a report of the surgical treatment of six cases of dysfunction in the temporomandibular joint with pain and snapping. All these patients had had the usual forms of therapy, such as removal of teeth to adjust the occlusion, injections into the joint, diathermy, chin bandages, chiropractic manipulations, etc., but with no relief. In these cases two forms of pathology were noted which should be differentiated, as the treatment depends upon this.

First there is the true recurrent subluxation of the joint, which is due to a shallow condylar fossa which allows the condyle to ride forward over the articular tubercle. It is then pulled back into position by the action of the muscles. This is an unstable joint, as is seen in the shallow acetabulum of congenital hip dislocations, and is shown by planogram (see Fig. 1).

The second type is due to an internal derangement of the interarticular fibrocartilage in which the fossa is deep enough. In this type there is usually a detachment of the cartilage from the capsule of the joint, allowing it to slip forward with motions of the jaw, and then snapping back with a loud click. The capsule is relaxed in all cases (see Fig. 2).

None of these cases had a history of jaw dislocations needing reductions and all developed over a period of years, gradually becoming more pronounced.

The patient complains of snapping in the jaw when he opens his mouth and pain referred to the temporal region. Some complain of pain in the ear. The noise is very embarrassing to women and some patients say their sleep is interfered with because the jaw snaps when they are about to fall asleep and wakes them.

Local anesthesia is used with adrenalin. This is very important, as the area is very vascular and oozing interferes considerably if a general anesthetic is used. Also, the patient moves his jaw, which is a great aid in finding the joint and in excising the cartilage. Moreover, there is no postoperative vomiting which might undo the correction obtained at operation.

The incision for operation is a straight one just in front of the ear extending from 1/2 inch below the external meatus straight upwards for 4 inches, which allows room for wide retraction and exposure of the temporal fascia. The scar is then in a natural fold of skin or in the hairline, and leaves no visible marks (see Fig. 3).

The auriculotemporal nerve and superficial temporal vessels are retracted backwards. The zygomatic fascia is incised along the zygoma and the upper part of the parotid with the facial nerve retracted downwards, exposing the joint. The capsule is incised and the interfibrocartilage is explored and removed by detaching from the joint capsule. There is usually some bleeding at this joint, so the joint should be packed.

A strip of the temporal fascia about 2 inches by 1/4 of an inch is next turned down and the lower end anchored as shown in Fig. 3. The upper end is attached to the periosteum below the articular surface of the condyle by silk sutures to reinforce the capsule.

The temporal fascial defect is closed by chromic suture and fine stainless steel wire is used to close the skin. A small rubber-band drain is left down in the wound for twenty-four hours and then removed.

In cases with a true recurrent subluxating joint, a type of shelf operation is used which deepens the fossa and prevents the condyle from riding over the articular tubercle. The same incision is used, but the incision is retracted more widely to allow the zygomatic fascia to be split further forward, exposing the zygoma for one inch in front of the joint. A small osteotome is inserted in the zygoma in front of the fossa and a shelf is turned downwards and backwards as in the shelf operation for congenital hip dislocation. It is held in place with a small wedge of bone from the under side of the zygoma, forming a shelf to prevent the condyle riding forward. The wound is then closed as before, with drainage;



Fig. 1



Fig 2A



Fig. 2B

also the temporal fascia is brought down as before to reinforce the capsule.

There has been no recurrence of symptoms in any of these cases. There is usually a transient paralysis of the side of the forehead affected, full function of which returns in about three weeks.

A many-tailed bandage was used to hold the jaw closed in the first cases, but this has been discarded as the patient keeps the jaw closed himself and the bandage is very uncomfortable.

Patients are kept on fluids given through a drinking tube for about a week, after which some soft food is given. They are allowed to resume use of the jaw gradually as the pain and swelling subside.

Case Reports

Following are reports of 6 cases operated upon using this technic.

Case 1.—Miss A. C., aged 20, was operated upon on May 20, 1937. She had a history of gradually increasing pain in the left jaw for the past six months, but no trauma. Pain on eating was referred up into the temporal region. She had clicking in the jaw when she was talking and snapping when she was ready to go to sleep at night. Examination showed snapping on opening the jaw and a clicking was felt on the left side on palpation. She had been examined by a dentist, who reported no trouble.

The operation lasted fifty-five minutes. Local anesthesia was used. A linear incision was made, the joint was opened, and the disk was found to be loose and doubling back on itself when the jaw was moved. The disk was excised and the strip of temporal fascia brought down and attached below the condyle with chromic catgut sutures.

A head bandage was applied to hold the jaw in place, but had to be removed the second day because of swelling and pain. Recovery was uneventful. Check-up one year following revealed no complaints.

Case 2.—Mrs. M. O., aged 31, underwent operation on October 19, 1937. She had had many abscessed teeth in childhood, which were extracted. She had suffered no trauma and no dislocation. For the past three years the patient had had pain in the left temporal mandibular joint, referred to the ear. Ear examination showed no pathology. A snapping noise had been present for two months. During 1936 she noticed that the jaw slipped forward on the left side, and the patient massaged it back herself. There had also been some pain extending from the right orbit to the occipital. Examination showed that the jaw subluxated on the left side on opening the mouth, but could be reduced easily by light massage. There had never been any locking. There was also crepitus, which was felt on moving the jaw. Planograph x-rays showed a shallow joint.

The operation lasted one hour and thirty minutes under local anesthesia. A straight incision was made. The zygomatic fascia was split forward almost to the temporo-zygomatic joint. The parotid was turned down with the facial nerve. Some small zygomatic branches of the facial nerve had to be cut. When the joint was opened the cartilage was found to be intact and was not removed. A shelf was turned down in front of the articular tubercle and held in place by a wedge of bone from the zygoma, deepening the articular fossa. A strip of temporal fascia was sutured to the condyle to re-

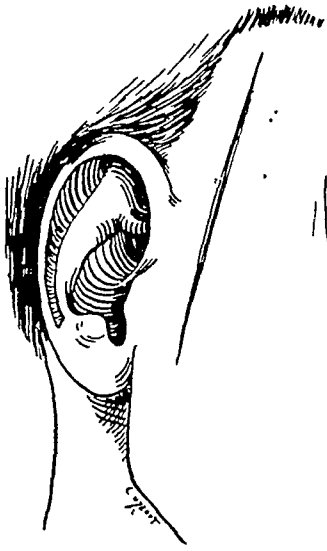


Fig. 3A

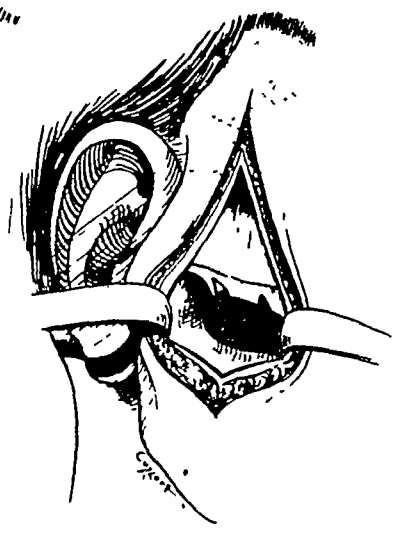


Fig. 3B

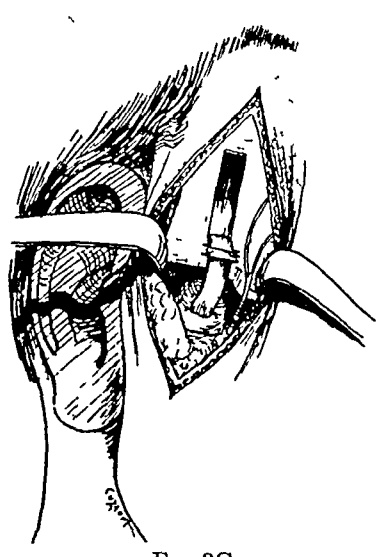


Fig. 3C

inforce the joint. A bandage was applied to immobilize the jaw but had to be removed on the fourth day because of swelling and pain. The patient had an uneventful recovery. One year after operation there was still some diminution of wrinkling of the left side of the forehead. This was probably due to small motor branches from the facial nerve having been cut in the wide exposure. A stable jaw was present with no complaints of pain or clicking.

Case 3.—P. G., aged 52, was operated upon on April 8, 1938. He had complained of snapping in the jaw for two years, with pain referred to the right ear. There had also been a sense of tiredness in the right side of the face, with aching at night. He had had considerable diathermy and the joint had been injected twice with no relief. The patient had all his teeth removed. For two months he had been unable to sleep because of a loud snapping in the jaw. X-rays were negative. Examination showed that the patient was thin and the right temporal mandibular joint could be well felt. On opening the jaw the condyle rode forward and a loud snap occurred before the mouth was completely open A sixty-minute operation was performed. A straight local incision was made, the joint was opened, and the disk was found to be detached and frayed along the detached portion. Cartilage was excised and the temporal fascia attached to the condyle. No fixation was used. A check-up three months following showed still some pain on opening the jaw wide, but no clicking.

Case 4.—Mrs. S. M., aged 36, underwent operation on October 16, 1939. She had been in an automobile accident three months prior to admission in which she was hit on the left side of the head. Following the accident a snapping developed in the right jaw. She had had diathermy, massage, and a head bandage, with no relief. There was no history of locking in the joint. Examination revealed that the patient was quite stout; nothing was palpated, but on motions of the jaw a clicking noise was heard which was transmitted to the fingers on palpation. This referred pain into the right ear. X-rays were negative. A fifty-minute operation was performed under local anesthesia A linear incision in front of the ear exposed and opened the joint. The cartilage was doubled on itself into the back of the joint. The cartilage was removed and a strip of temporal fascia brought down to reinforce the joint No fixation was made. Recovery was uneventful and the patient was discharged from the hospital in ten days. There was no check-up, as the patient left the state.

Case 5.—J. M , aged 28, underwent operation on September 17, 1940. The patient had had a wisdom tooth extracted one year and a half before the operation. Following the extraction snapping developed in the right jaw. He consulted his dentist, who said that the occlusion was normal. He then tried chiropractic treatments and had a course of injections, with temporary relief. For two months prior to the operation, snapping became much more pronounced. The patient complained of temporal pain and earache. Examination showed a well-developed young man. Snapping and crepitus were present in the right jaw. X-rays were negative. A forty-five-minute operation was performed under local anesthesia. A straight incision was made, the jaw was opened, and the cartilage was found to be frayed and detached. The joint capsule was much relaxed. The disk was removed and a strip of temporal fascia was sutured to the condyle. A follow-up examination one year later revealed no clicking and no pain; the patient made no complaints.

Case 6.—Mrs. G. T., aged 44, was operated upon on December 9, 1940. Two years before she had

had two wisdom teeth removed. Following this there was persistent pain in the jaw which gradually became localized to the left; there was also earache on the left. She had been to several dentists, who had adjusted her occlusion with no relief. She then
[illegible] She stated that
r the left jaw and
ie left eye. Following these attacks she was unable to eat any solid food. Examination revealed a thin middle-aged woman. There was crepitus present in the left jaw, and when the mouth was opened wide a loud snapping noise was heard. This caused pain in the ear. The x-rays were negative. The operation was performed under local anesthesia and took fifty minutes. A straight incision was made, the joint was opened, and the cartilage was found to be frayed but not detached. The cartilage was removed and the temporal fascia ligament applied to the condyle. No retaining apparatus was used. The patient left the hospital ten days after the operation. A report from her physician in another state six months later mentioned no complaints.

Discussion

Dr. John W. Ghormley, *Albany*—The author is to be congratulated for presenting his opinion and experience upon this troublesome and controversial subject. Operative procedures upon the temporomandibular joint are looked upon, both by the laity and the profession, with considerable apprehension. And it is true that a majority of cases with dysfunction of this joint need not come to operation. The more reports we have of good results following operative procedures, the more intelligently we can deal with these patients.

I have made no attempt to review the literature, but I believe that the last important contribution on the subject was that of Dr. Mayer, who in 1933 reported doing his bone block in 3 cases. Nieden, in 1923, in the *Deutsche Zeitschrift für Chirurgie*, reported a case in which he turned down a piece of the temporal fascia and attached it to the condyle of the jaw. Apparently that is the procedure used by the present essayist. A third report was made in the *Archiv für klinische Chirurgie* in 1921 by Konjetzny, who in 3 cases took a portion of the posterior intra-articular cartilage and turned it forward and lodged it in the anterior half of the joint, in order to prevent forward slipping. The present author's report of six cases operated upon is a welcome addition to that list.

Dr. Otho C. Hudson, *Hempstead*—We would like to emphasize the pathologic changes.

There are two types of joint lesions. (1) The shallow mandibular joint giving subluxations is less frequently seen. (2) The pathology in the joint giving internal derangement may be thinning of the internal meniscus, partial destruction of the meniscus, or complete destruction of the meniscus. After complete destruction of the meniscus there occur roughening of the condyle and destruction of the articulating surface of the articular eminence; that is, traumatic arthritis of the joint. These changes can be seen in x-ray by the decreased density of the bone about the mandibular fossa.

The dentist, by correcting malocclusion, may relieve the patient with a thin meniscus of symptoms. The other patients need surgical intervention.

ROCHESTER ACADEMY ANNOUNCES PRIZES

The Rochester Academy of Medicine announces three prizes
1. The
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This award
of Mrs. Da...
Companies prize of $100, accompanied by a certificate of award, will be given for a thesis contributing to the knowledge of clinical medicine (including internal medicine, surgery, obstetrics, pediatrics, or other subdivision) attained by accurate observation of laboratory studies, and by deduction from accurate observation of cases, combination of these. Competition for this prize is open to any doctor of medicine whose degree was received from an approved medical school since April 30, 1940, and who is either a bonafide resident of Monroe County or is on the staff of a accredited medical institution located in Monroe County. The Paine Drug Company prize of $100, given for clinical surgery, review of the literature, laboratory studies, and public health survey, or a combination of these. Competition for the prize is open to any member of the Rochester Academy of Medicine in good standing on May 1, 1944.

The theses should be sent to the Rochester Academy of on or before March disclose the identity be attached a sealed envelope carrying this identification.—*J.A.M.A., Dec. 23, 1944*

Case Report

CLINICAL TREATMENT OF MENOPAUSAL HYPERTHYROIDISM WITH TESTOSTERONE PROPIONATE

ALEX GOLDMAN, M.D., ABRAHAM I. SCHAFFER, M.D., and MARK J. MARKHAM, M.D.,
New York City

SEXUAL phenomena in the female are characterized by their cyclic nature. The menstrual changes are only the outward manifestations of a wide variety of quantitative and qualitative chemical and cytologic changes that occur with a fairly regular periodicity. A definite variation in urinary estrins can be demonstrated at varying points in the menstrual cycle. Under normal and pathologic conditions Aron[1] has observed parallel variations in the excretion of the gonadotropic and thyrotropic hormones, and Hitchcock and Wardwell[2] have found a correlation between the metabolic rate and the blood estrin content. There can be little doubt that quantitative variations will ultimately be demonstrated for all the related endocrine secretions.

With the onset of the menopause, there is a gradual or sudden cessation of this periodicity. That there is a definite and immediate effect upon the pituitary gland is demonstrated by the appearance of large quantities of gonadotropins in the urine. Whether it is assumed that the ovary loses its capacity to respond to gonadotropic stimulation (end-organ failure), or whether the failure is primarily in the secreting mechanism of the ovary has not been determined. However, the end result is essentially the same—namely, an alteration in the production of the female sex hormones.

There occurs concomitantly a change in the activity of the anterior pituitary, for this gland has now lost the natural inhibitory influence of its interdependent relationship with the ovary. As has been stated, increased quantities of gonadotropins can be demonstrated in the urine. Similarly, increased quantities of 17-ketosteroids are excreted in the urine of menopausal women, indicating an excess of adrenotropic factor. It is difficult to definitely demonstrate an increase in the thyrotropic factor in the menopause. However, the frequent clinical occurrence of hyperthyroidism at the time of the menopause points to the possible presence of such an excess.

Inhibition of the pituitary by an estrogen would, therefore, appear to be the desired goal in any attempt to relieve the symptoms of hyperthyroidism associated with the menopause.

In an earlier report, we[3] described the use of large doses of estrogenic substances in the treatment of clinical hyperthyroidism at the time of the menopause. Of five cases of menopausal hyperthyroidism treated with progynon B, all showed both clinical improvement and lowering of the basal metabolic rate.

One of the patients (S. B.) had been given gonadotropic hormone (follutein) for several days through an error. Her basal metabolic rate increased from +50 to +69 per cent, and all her symptoms were aggravated. The resumption of estrogenic therapy resulted in clinical improvement and a slight decrease in the metabolic rate. In an effort to further decrease the metabolic rate, male hormone was substituted for estrogenic therapy with very satisfactory results. Another patient (B. M.), a 22-year-old woman, who had undergone two thyroidectomies, returned in January, 1941, complaining of aggravation of all of her symptoms. Although she had gained 45 pounds, her metabolic rate had increased to +11 per cent. After the administration of 10,000 units of gonadotropic hormone (follutein), her metabolic rate increased to +50 per cent. At this point estrogenic therapy was substituted, with a consequent fall in her basal metabolism to normal. These cases appeared to be evidence that in menopausal hyperthyroidism we are concerned with thyrotropic hormone excess, as Van Horn[4] and Sherwood[5] seem to have demonstrated. Gonadotropic hormone therapy results in stimulation of the production of thyrotropic hormone; estrogenic therapy results in inhibition.

Further investigation along these lines was thought to be necessary. Certainly, if the administration of testosterone propionate could produuc results comparable to those obtained with estrogens, another step would have been taken to indicate that we are dealing with a direct suppression effect upon the pituitary. Geist[6] has obtained a definite inhibition of urinary gonadotropins in postmenopausal women treated with testosterone propionate. Second, under certain circumstances, such as in elderly impotent men with a low basal metabolism, testosterone propionate can produce an elevation of the basal metabolic rate. Therefore, the clinical relief of the symptoms of menopausal hyperthyroidism, together with a fall in the basal metabolic rate and a decrease in urinary gonadotropin would lend support to the contention that the effectiveness of testosterone propionate therapy is due to an inhibiting effect upon the anterior pituitary.

It is for this reason that we wish to report upon the following cases of menopausal hyperthyroidism treated with testosterone propionate.

Case Reports

Case 1.—Mrs. S. B., aged 50 years, was admitted to the Bronx Hospital in December, 1937, complaining of gallbladder symptoms, weakness, and loss of 60 pounds in three years. She had had no menses in the past fifteen months. Her thyroid was slightly

enlarged and there was a fine tremor Her blood pressure was 180/100 and her basal metabolic rate was +49 per cent and +50 per cent on two occasions The gallbladder could not be visualized on x ray after oral dye This is the case in which chorionic gonadotropin (follutein) was given every day for seven days through a misunderstanding The patient's nervousness and tremor became worse and her metabolic rate increased to +69 per cent Then [illegible] 1 6 mg intra was substituted, 53 per cent and was discharged returned to her marked tremor and nervousness and a metabolic rate of +55 per cent Resumption of estradiol benzoate 1 6 mg three times weekly, resulted in a steady moderate improvement in her symptoms in the course of the next six months and her metabolic readings were +50 per cent, 44 per cent, and 31 per cent In October, 1938, the substitution of testosterone propionate (Oreton) therapy in doses of 25 mg three times weekly was started and her metabolic readings decreased to +12 per cent, 2 per cent, and 6 per cent [illegible] nths together No therapy 1941 Since her gallbladder symptoms were very much worse a cholecystectomy was performed at this time She then felt well until a year ago when she developed ascites due to cirrhosis of the liver and died

Case 2.—Mrs M M aged 52 was admitted to the Bronx Hospital in June 1941, complaining of epigastric pain, relieved by food and also of tarry stools Another hospital had made a diagnosis of duodenal ulcer after x ray During the six months of her illness, she had lost 32 pounds, suffered from insomnia and a chronic dry cough and her menses had become scanty Examination showed a flushed, [illegible] ectro- erapy +19 nt so striking that she resumed work

This case may be summarized as follows A woman in the menopause with symptoms predominantly abdominal was found to have a definite hyperthyroid condition Intensive estrogenic therapy [illegible] mptoms At the [illegible] ir fibrillation and [illegible] no decrease Then testosterone propionate was given with a very satisfactory improvement of her general condition and a marked and unmistakable fall of the basal metabolism rate

cholesterol 160 mg per cent, and there was occult blood in the stools [illegible] thick gastric rugae The tremor, nervous irregular menses we pausal hyperthyroid [illegible]

rate to +51 per cent, ment After the pat hospital clinic treatm weekly for six weeks, per cent and then +38 per cent, with marked im [illegible] substitution times weekly decrease of metabolic rate to +27 per cent, and, in May, 1943, to figures of +10 per cent and +9 per cent The patient is now feeling very well and has resumed work

Case 3.—Mrs R F, aged 46 years was admitted to the Endocrine Clinic of the Bronx Hospital in March 1941, complaining of cramp like abdominal pains after meals infrequent vomiting dyspnea on [illegible]

a pulse of 120, and blood pressure of 215/110 The abdomen was somewhat distended, but no masses or fluid were demonstrable The oral sugar-tolerance test showed decreased tolerance fasting sugar 129 mg per cent, one hour 233, two hours 266, and three hours 217 The basal metabolic rate was +47 per cent Treatment was started with estradiol benzoate 1 6 mg three times weekly After two weeks, auricular fibrillation developed and the liver was slightly enlarged, but treatment was continued After two more weeks there was subjective improvement, and this continued for six weeks more, with a gain in weight of [illegible] and no fibrillation high, 175/90 and +55 per cent Because of the persistently high metabolic rate, estrogenic therapy was stopped and treatment was begun with testosterone propionate 25 mg three times weekly After thirteen injections in eight weeks, her metabolic rate had decreased to +18 per cent No therapy was given for three months at which time the rate had risen to +28 per cent, the apex rate was 100, pulse 80 the blood pressure was 180/90, the liver was again palpable, and there was slight pretibial edema Resumption of testosterone therapy after eleven injections in five weeks showed a metabolic rate still high (+33 per cent), with dyspnea, palpitation, and definite

Summary and Conclusion

1 Three cases of hyperthyroidism associated with the menopause have been presented All three cases showed moderate improvement of their toxic thyroid symptoms and some lowering of the basal metabolic rate when treated with large doses of estrogenic substance (progynon B)

2 In all three cases improvement was maintained and increased when testosterone propionate in 25 mg doses was substituted for estrogenic substance (estradiol benzoate)

3 The nonspecific effective action of both estradiol benzoate and testosterone propionate in lowering the basal metabolic rate and improving the clinical state in these menopause patients who show hyperthyroid symptoms, and the opposite effect of chorionic gonadotropin in heightening the symptoms and raising the basal metabolic rate leads to the conclusion that we are dealing with a thyrotropic or thyrotoxic principle which is inhibited or suppressed when the pituitary is inhibited and which is stimulated when the pituitary is stimulated

We wish to point out that in some cases of menopausal hyperthyroidism in which estrogenic treatment is ineffective testosterone propionate will produce the desired effects

Secondarily, we have observed that prolonged treatment of these middle-aged menopausal women with testosterone propionate resulted in no voice changes and in no appearance of hirsuties. This is in direct contrast to the results noted in young women in whom testosterone has been employed.*

* The testosterone propionate used in these cases was supplied by Dr. Max Gilbert, of the Medical Research Division of the Schering Corporation, Bloomfield, New Jersey. The folleutin used in these cases was supplied by E. R. Squibb & Sons, New York City.

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CONVALESCENT HOSPITAL CARE FOR POLIOMYELITIS CASES

The pooling of personnel resources to meet the great need for postacute and convalescent care of victims of this year's outbreak of infantile paralysis in New York State was given detailed consideration by hospital administrators at a meeting called September 26 by the State Department of Health.

Dr. Edward S. Rogers, assistant commissioner for medical administration on the department staff, in whose office the meeting was held, stated that according to the closest estimates that he could make the total number of cases in upstate New York will reach 4,000 by the end of the present outbreak, now past its peak, equaling the figure for the epidemic of 1916. This does not, however, hold true for New York City, the expected total for which is 1,800 cases, only about one-fifth of the number experienced in 1916.

After considering these estimates and the expectation that approximately 25 to 30 per cent of the total cases reported will require convalescent hospital care, the group expressed serious concern over the problem in future months of providing the facilities required to meet upstate demands.

Harold A. Grimm, past-president of the Hospital Association of New York State and a member of its Executive Committee, introduced a resolution, which was unanimously approved by those present, providing for the appointment by the State Commissioner of Health of an Advisory Coordinating Committee, to consist of three representatives of each of the following groups: The Hospital Association of New York State, the New York State Association of Institutions for the Physically Handicapped, and the New York State Department of Health. It will be the function of this committee to evaluate the needs of the postepidemic poliomyelitis period, make recommendations to the Commissioner of Health concerning the allocation of personnel and patients to institutions qualified to care for such patients and any other matters relevant thereto, and to urge the membership of their respective organizations to cooperate to the fullest extent in the program to be outlined.

Commenting on this resolution, Dr. Rogers said that such willingness on the part of all concerned to pool their resources of personnel and to assume to the utmost of their ability their share of the volume of cases to be handled constituted a most important step toward meeting this difficult situation.

He added that there was no question as to the availability of sufficient hospital beds in institutions adequately equipped to provide the necessary care; but that practically all of the institutions were insufficiently staffed to utilize their full bed capacity and that this deficiency, in the opinion of the group, was an extremely serious problem. Trained physical therapists and nurses are in greatest demand.

It is hoped that through the action of the committee to be appointed and the cooperation of such agencies as the American Red Cross, the National Foundation for Infantile Paralysis, and many other public-spirited groups, the resources for manpower in the State may be more fully utilized. The group was agreed that there are an appreciable number of qualified physical therapists and nurses, no longer active in their profession, who, if the urgent need were understood, would be willing to make the sacrifice of returning to active duty for short periods of time. Any such persons in the State are requested to communicate immediately with Dr. Rogers, State Department of Health, Albany 1, New York.

The group plans to appeal to appropriate departments and agencies in states throughout the nation in behalf of the New York State institutions where the need for this additional help is critical.

Dr. Rogers said that the shortage of personnel, not only of nurses and physical therapists but of hospital personnel of all categories, had been made acute because of the war. He added, however, that it was impossible to think that some way could be found, through public-spirited effort, to make available to children and older victims of the epidemic the type of care that they require now, and will continue to need during the course of the next six months or more, to prevent the development of serious deformities that could not otherwise be prevented.

Those attending the meeting were: West J. Altenburg, New York State representative of the National Foundation for Infantile Paralysis; Assemblyman Lee B. Mailler, first vice-president of the Hospital Association of New York State; Anastasia McConnell, vice-president of the State Association of Institutions for the Physically Handicapped; H. B. Meek, vice-president of the State Association of Institutions for Physically Handicapped; Moir P. Tanner, president of the State Association of Institutions for the Physically Handicapped; Dr. David D. Rutstein, deputy commissioner of the New York City Department of Health; Carl Wright, executive secretary of the State Hospital Association; and, from the State Department of Health, Dr. Leon Sternfeld, acting chief, Bureau of Medical Rehabilitation; Clifford Shoro, director, and Marion L. Henry, assistant director, Division of Accounts; Marion W. Sheahan, director, and Mattie M. Washburn, assistant director, Division of Public Health Nursing.—*Health News, October 9, 1944*

Case Report

CHICKENPOX, HERPES ZOSTER, AND ACUTE ANTERIOR POLIOMYELITIS

JOHN C. McGARRAHAN, M D , Cohoes, New York

THERE is a growing mass of evidence which points to a possibly fundamental relationship between herpes zoster and chickenpox Primarily, the evidence emphasizes the tendency of both conditions to appear concurrently in communities at times In addition, the characteristics of the individual lesion in both herpes and chickenpox are apparently identical, and each process is accompanied by some degree of pruritus or paresthesia such as identify milder forms of neuritis, although in herpes zoster severe pain is the rule

So far as I know, there have been no reports on the parenteral use of thiamine hydrochloride in chickenpox, though its use and high degree of efficacy in herpes zoster are relatively well known Therefore, the following cases are presented

Case Reports

Case 1.—J. G , a white boy aged 14, who had had chickenpox when he was 3 or 4 years old, was seen on January 8, 1942, with typical chickenpox of forty-eight hours' duration. The general symptoms and the extensiveness of the lesions were much more severe than usual Ordinary general and local measures were used, but on the following day a new crop of lesions was appearing, involving even the palms The temperature was still elevated and the

[illegible] hour was restless Then he announced that all of the itching had suddenly disappeared The following day he was found to be perfectly comfortable, having slept all night, and the lesions which had started on the previous day were already dry, while the older lesions were retrogressing As a measure of safety the dose was repeated. There was no reaction of any sort after this dose, and recovery was entirely uneventful.

Case 2.—J. N., a white girl aged 10, on March 15, 1943, developed chickenpox When seen the following day she presented multiple, scattered lesions in various stages of development, the larger blebs being surrounded by areolae a half inch in diameter. There was a profusion of beginning lesions Fifty [illegible]

March 18, all except the largest lesions were dry and the child was clinically well No further treatment was given and all scabs were off in ten days

Case 3.—D C , a white boy aged 8, developed chickenpox on June 23, 1944 He was first seen on June 24. He was not very ill and presented only a moderate number of characteristic lesions scattered over the body. His temperature by axilla was 99 F. Salicylates, catharsis, and antipruritic ointment were ordered When seen on June 25, at about 5.00 P M , he was not and had not been very ill but was quite uncomfortable from the intense generalized itching The lesions were much more numerous and

[illegible]

marked congestion of the conjunctivae but no jaundice The liver edge was palpable, rounded, and very tender He was given 50 mg each of thiamine, nicotinamide, and ascorbic acid intravenously. Shortly after 11:00 P.M. (about six hours after the parenteral dose) he fell asleep and slept soundly all night There was no further itching and no new lesions appeared His sister, aged 4, developed chickenpox on July 8 while away from home and consequently was not under my care. The mother reported later that this child had been quite ill with high fever, intense pruritus, and a profusion of lesions, some of which were apparently quite large. She commented on the marked difference in the course of the disease in the two children

These cases link more closely together chickenpox and herpes zoster through a method of treatment which has proved its worth in herpes and may be of extraordinary value in chickenpox, particularly in adults and older children, and, with modification of the mode of administration, in young children and babies. The general reaction noted in these cases with termination of the disease process six hours after the intravenous dose of thiamine hydrochloride coincides with the time lapse required for relief of pain by the same method in herpes zoster and neuritis of deficiency origin, in my experience.

Without reference to therapeutic management, the following interesting combination of pathologic processes is set forth

Case 4—T. S , a white boy aged 3, and A S , a 5-year-old girl, brother and sister, came down with chickenpox on November 17 and 18, 1942 On October 25, the mother had developed a head cold and shortly thereafter the father had developed a painful rash which, when seen on November 3, proved to be an extensive herpes of the right thigh. Some of the lesions were hemorrhagic. About this time the mother had become achy and had had an enterocolitis followed by a pulmonary process of both bases resembling early consolidation (virus

had an extensive herpes labialis, though she was otherwise apparently well.

A more startling combination of disease entities in the light of the facts set forth is represented by the following case:

Case 5.—S. R., a white man aged 28, became ill with a cold about August 29, 1941. He developed generalized aches and pains and his disease was diagnosed as "grippe" by a physician, who gave him salicylates and advised bed rest. I saw him on September 5, 1941, after he had been ill about a week. Temperature and pulse were both elevated. He had no cough but he complained bitterly of headache, which he "had never had in his life before," and of pains in his arms and legs. He was very irritable. There was stiffness of the neck and spine and soreness of the muscles of the arms and legs. He was unable to flex the right thigh on the trunk. Neoprontosil and thiamine hydrochloride were given by mouth. His fever subsided after four days. In this time soreness and weakness of the muscles about the left shoulder had appeared. He was referred to the Orthopedic Division of the State Health Department for follow-up after the subsidence of the acute phase, and their final report indicated complete recovery without residual disability.

On the third or fourth day from my first visit, his wife complained of a painful rash which she asked me to see. She had an extensive herpes intercostalis on the left side. She said that she and her husband had come down with colds at the same time and that after a few days of discomfort in the left side of her chest, the rash began to appear. About two weeks after the father was first seen, the baby, 7 months old and bottle-fed, came down with very mild chickenpox, characterized by relatively few but typical lesions and no general symptoms. The older child, 2 years of age, showed no signs of any illness. Both children were necessarily restricted in contacts because of the quarantine imposed by the father's illness and, so far as is known, neither could have been exposed to chickenpox.

It is difficult to look upon the practical coincidence of acute anterior poliomyelitis, herpes zoster (acute posterior poliomyelitis), and chickenpox in three members of the same household as more than an interesting group of clinical facts, but its possible significance cannot be ignored.

Finally, there is presented the following case. Although an isolated instance, it involves a therapeutic measure which is harmless in itself and was apparently of no little efficacy in this particular patient.

Case 6.—J. T., a white girl aged 8, had always been subject to gastrointestinal upsets characterized by vomiting, diarrhea, and fever, usually clearing spontaneously after a few days. She had no spells from December, 1942, until June 28, 1943, when she began with what appeared to the mother to be the usual type of upset. During a week of very hot weather she had been in a large swimming pool with her sisters, aged 3 and 10, on June 22 and 24. She had seemed perfectly well except for conjunctival redness noted by the mother on June 25. On June 27, the three sisters played for a considerable time under a running hose. The following morning the patient complained of not feeling well and of having a headache. Vomiting and diarrhea followed. She was feverish and continued to have headache. She did not complain of pains in any other part of her body, but she was irritable. I saw her on the morning of June 30, at which time she was obviously very ill. There were marked twitching of the facial muscles, irritability, and confusion. The lips were dry and cracked. The tongue was moist, protruded in the midline, and its tip was cherry-red. The pharynx and tonsils were normal in appearance. There was no abnormality of teeth or gums. The pupils were slightly dilated, reacting sluggishly to light. Eye movements seemed normal. There was a suggestion of bilateral ptosis of the lids. The ear drums were normal. The sclerae were slightly congested but not icteric. Axillary temperature was 105.1 F.; the pulse was 150. The neck was quite stiff and the back slightly so, with marked tenderness of the paravertebral muscles. The abdomen was slightly distended and sensitive, especially in the epigastrium. The knee-jerks were not elicited; the Kernig reaction was positive on both sides; the Babinski sign was uncertain; no ankle clonus was noted. The thigh and leg muscles were extremely tender. The patient was incontinent of feces. The picture was one of involvement of the central nervous system in a process accompanied by a severe gastrointestinal disturbance. In the presence of the characteristic tongue sign of niacin deficiency, severe diarrhea, and disturbed sensorium, the administration of niacin seemed the first essential. Then, because thiamine deficiency is accompanied by vomiting in many instances, but chiefly because I have leaned to the theory that its lack plays an important role in the neural damage in poliomyelitis, thiamine hydrochloride seemed indicated. She was accordingly given 50 mg. of thiamine hydrochloride and 150 mg. of niacin intravenously. In addition, a mixture of bismuth and belladonna was ordered, with 0.6 Gm. of sulfanilamide and B-complex to be given every four hours when vomiting had ceased. Routine enemas were ordered.

There was no further vomiting. A specimen of urine that evening showed 4 plus sugar.

The following day, July 1, the child was so materially improved (axillary temperature 101 F., pulse 100, markedly reduced irritability, absence of muscle soreness, no diarrhea nor vomiting, reduced rigidity of neck and back) that it seemed advisable to omit the parenteral dose of thiamine and niacin, and to depend upon oral therapy. The patient was seen on July 2, when it was found that the conditions noted on the first visit had returned in aggravated form and the improvement noted on July 1 had completely disappeared. In addition, she had been unable to void for twenty-four hours. Soreness was not found in the legs, but the muscles of the shoulder girdle were extremely sensitive, especially the pectoral groups. The axillary temperature had risen to 104.5 F., and the pulse rate was 150. There was some scleral jaundice. The original intravenous dose was repeated. The urine was found to be sugar-free when voided that evening. On July 3, the patient was better than at any time previously. She was quite relaxed—in fact, almost sluggish. There was ptosis of both lids. The tongue was almost normal. There was no muscle soreness. Temperature by axilla was 99.4 F., pulse 100. The rigidity of the neck and back was diminished greatly. The intravenous dose was repeated.

On July 4, the temperature by axilla was 98 F., pulse 90. The chin could be brought easily to within an inch of the sternum. The child was somewhat lethargic but very hungry. The ptosis of the

lids was still present No muscle paralysis could be found on such examination as was possible, but there seemed to be a general wasting of all the skeletal muscles in minor degree The intravenous dose was repeated On July 5, she was found to have normal pulse and temperature, and was much [illegible] re was idence while to be eg off the bed against gentle resistance Vitamin B complex, belladonna, and bismuth were continued

The patient was seen every few days and on July 14 was found in excellent condition Her appetite color, disposition, and energy were definitely improved Some scleral jaundice was present and she had vomited once on the morning of July 12 There was definite difficulty in lifting the extended left lower extremity The Orthopedic Division of the State Health Department corroborated the weakness of the left lower extremity and found some weakness of the muscles of the right forearm

By August 1 she was walking about and, except for a tendency to throw the left leg in walking, showed no gross evidence of neuromuscular damage Her mother considered that the girl's general condition, color, appetite, and disposition were better than they had been for a long time Her intake of vitamin B complex has been continued and, in view of her lack of serious residual disability and her improved general condition, she was permitted to go back to school on September 27, 1943

In reviewing this case there seems little room for doubt that it represents a definite case of acute anterior poliomyelitis, or that the parenterally administered thiamine and niacin were responsible for the excellent outcome The proof of the latter point lies in the improvement after the first dose, the relapse on failure to follow with a second dose in twenty four hours, and the resumption of progress to complete disappearance of acute symptoms after three successive doses

No general conclusion can be drawn from this case, except it be the time tried rule that it is more important to treat the patient than the disease

Summary

This paper concerns itself with further data which contribute to the accumulating facts pointing to an interrelationship between chickenpox and herpes zoster In addition, it presents a method of treatment (intravenous use of thiamine hydrochloride) which in the cases of chickenpox on which it was tried brought the disease to an abrupt end in about six hours Finally, it presents a situation suggestive of a relationship between chickenpox herpes zoster, and acute anterior poliomyelitis and a case of the last which made unusual progress on treatment with thiamine hydrochloride and niacin intravenously during the acute stage

Conclusion

The value of thiamine hydrochloride in the treatment of herpes zoster is well established Its value in treating chickenpox is strongly indicated here Its use as a therapeutic measure in infantile paralysis is an opportunity not to be overlooked in any acute case of that disease As a matter of exact fact, I believe that the niacin in the case presented may have been as important as the thiamine It is fair to assume, in view of our present-day knowledge of the role of thiamine in the maintenance of nerve function, that its importance is primary and that the sufferer from infantile paralysis in its acute stage faces a better prospect with an available (parenterally administered) excess of thiamine, rather than with a possible deficit The importance of parenteral administration of thiamine (and niacin) in the acute deficiencies such as appeared in the cases reported here cannot be overemphasized It is the *relative* deficiency of one or more elements of the B group of vitamins which I believe is the fundamental in all of the cases presented here The origin of such a deficiency may at times be obscure, but material in preparation will help to define a mechanism whereby vitamin B-complex deficiency may appear despite an adequate dietary intake

I would emphasize here the fact that *all* of the diseases mentioned are "virus" diseases and I presume to raise the questions, "Are viruses antivitamins?" or "Does relative avitaminosis B predispose to tissue damage by viruses?"

I am aware of the material covered in the editorial "B-1 Vitamin Hypoimmunity"[1] and feel that some better explanation will be found for the statistical results quoted than a stimulating effect on poliomyelitis virus by thiamine The results of the experiments would suggest the existence of some unconsidered factor which, in my opinion, would be the actual physical and functional state of the host at the time of or shortly after the introduction of the virus Finally, attention is called to the article "Treatment of the Acute Stage of Poliomyelitis" by Dr Conrad Wesselhoeft[2] His second case, though less fulminating, has a measure of clinical similarity to the last case described by me and the marked contrast in the course of the acute stage in the two cases definitely serves to emphasize the value of the parenteral administration of thiamine and niacin In particular, I would point to the fact that Dr Wesselhoeft's case required repeated catheterization, while my patient, after twenty-four hours' retention, voided spontaneously in about six hours from the administration of the second intravenous dose (*cf* interval required for relief in the cases of chickenpox)

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MEDICAL GROUPS HOLD FEBRUARY MEETINGS IN CHICAGO

The National Conference on Medical Service Plans will meet in Chicago on Sunday, February 11 On February 12 the Annual Congress on Medical Education and Licensure opens A score of other small medical and allied groups will meet in Chicago during this fortnight

Medical News

Four-County Drive Planned to Fight Rheumatic Fever

THE need for a campaign to inform the public of all available knowledge of rheumatic fever and rheumatic heart disease was discussed by Dr. J. G. Fred Hiss, professor of clinical medicine at the Syracuse University College of Medicine, at a Teaching Day on the subject conducted on December 1.

Dr. Hiss outlined the organization of a demonstration area for New York State to be set up in the four counties of Onondaga, Cayuga, Cortland, and Oswego, to provide a complete program for combating the disease. The program will be extended to the rest of the State, Dr. Hiss said, after it has been successfully organized in these four counties. The proposed plan will be known as the Syracuse District Cardiac Program.

Dr. David D. Rutstein, Deputy Commissioner of Health of New York City, outlined the reasons for an adequate program against the disease. He enumerated the five reasons as being difficulty of diagnosis, the chronic nature of the disease, the wide prevalence of the disease, and the complexity of care necessary for patients.

Dr. Homer F. Swift, of the Rockefeller Institute for Medical Research, discussed environment as a cause of repeated fever attacks. He said that a low economic status, by creating bad housing conditions with crowded facilities, may be a definite cause for the disease.

During the year of 1938, Dr. Swift said, in New York City five times as many deaths were caused among children by rheumatic fever as by whooping cough, spinal meningitis, measles, diphtheria, and scarlet fever combined.

Dr. Swift also discussed methods at present available for the prevention of the disease, though some of them are not applicable to the population at large at the present time. These methods have been developed by the Army for the treatment of its members.

Dr. Albert D. Kaiser, of the University of Rochester School of Medicine, declared that effective treatment of rheumatic fever resolves itself into intelligent aftercare. He pointed out several effective methods to prevent recurrence of the fever attacks. Although several more recent methods have been discovered, he said, administration of sodium salicylate is still the most popular medicine among physicians. The presence of tonsils has not been proved to encourage recurring attacks, he declared, but their removal often lowers mortality by minimizing chances of streptococcus infection.

Dr. Kaiser stressed the importance of having a public convalescent home for patients suffering from the disease so that they may receive the proper aftercare. He urged the creation of such a home in Syracuse.

Dr. T. Duckett Jones, of the Harvard Medical School, declared that the disease seems definitely to be associated with "crowding," as shown by its prevalence in Army and Navy cantonments. Dr. Jones said it is also associated with streptococcus infections and usually follows in three or four weeks after an attack of sore throat. He emphasized the need for not neglecting throat infections and tonsillitis.

Several hundred medical students at Syracuse University, including a large proportion of men in uniform, and physicians from the four counties, attended the meeting in the lecture hall of the College of Medicine during the afternoon.

Hines Names Doctors to Aid Veterans in Treatment of Rare Diseases

BRIG. GEN. FRANK T. HINES, Administrator of Veterans Affairs, named on December 21 eight members of a fifteen-member medical panel which will advise on the treatment of veterans suffering from rare types of diseases encountered in faraway battle areas, as well as improvement of general practices in the treatment of veterans.

The other members of the panel are to be named, he said, as soon as acceptances are received. None has refused to serve, General Hines told newspaper men, but some of the advisers are recurrently working either abroad or in operations which cannot be interrupted immediately.

Dr. George Morris Piersol, professor of medicine at the University of Pennsylvania, is chairman of the group, and Dr. Roy D. Adams, clinical professor of medicine at Georgetown University, is permanent secretary.

The six others who have accepted appointment on the panel are as follows: Dr. John Alexander, professor of surgery and surgeon-in-charge, Section of Thoracic Surgery, University of Michigan; Dr. J. Burns Amberson, Jr., professor of medicine, Columbia University; Dr. George E. Bennett, adjunct professor of orthopaedic surgery, Johns Hopkins University; Dr. William F. Lorenz, professor of psychiatry, University of Wisconsin; Dr. Frederick W. Parsons, former Commissioner of Mental Hygiene, New York State; and Dr. Oliver H. Perry, professor of medicine, University of Pennsylvania.

Meyer and Shaw Get Mental Hygiene Posts

EUGENE MEYER, editor and publisher of the Washington *Post*, who also has a distinguished record in business and public service, was elected president of the National Committee for Mental Hygiene at a meeting of the Board of Directors at a luncheon in New York on December 14. Dr. Adolf Meyer, of Baltimore, who was instrumental in the original organization of the Committee and suggested its name, was its president in 1940–1943 and recently has been honorary president. Mr. Meyer, as president of the Committee, will also serve as chairman of the board of directors.

Mr. Meyer is the first layman to be chosen president of the National Committee in the thirty-four years since it was founded by the late Clifford W. Beers. In many capacities in recent years he has exerted influence to improve mental health and has been especially concerned with mental health of men in the armed forces.

Previous presidents of the Committee have been

Dr Henry B Favill, Dr Lewellys F Barker, Dr Walter B James, Dr Charles P Emerson, Dr Arthur H Ruggles, and Dr Adolf Meyer

G Howland Shaw, who retired recently as Assistant Secretary of State after a long career in diplomacy and who has been active in many social and civic enterprises, was elected president of the American Foundation for Mental Hygiene at its sixteenth annual meeting, also held at the luncheon Mr Shaw succeeds the late Dr Bernard Sachs, of New York

Mr Meyer, Lt Col Karl Menninger, and Dr Lawrence Kubie were elected as directors, and the following were re elected as directors Dr Karl M Bowman, Dr William [illegible] Dr Frederick [illegible] Tarumianz, and Dr [illegible] ank Fremont Smith and Col Leonard G Roundtree were elected by the Board as vice-presidents to serve with James R Angell and Dr William L Russell, vice presidents The Board also re elected the following officers Dr Adolf Meyer, honorary president, James R Angell and Dr William L Russell, vice presidents, Mrs Albert D Lasker, secretary, Harry Pelham Robbins, treasurer, James S Plant, chairman of the Executive Committee, and Dr Edward A Strecker, chairman, Scientific Administration Committee

Reduction in the Medical Corps of the Army

A MODERATE reduction in numbers of Army Medical Corps officers is necessary in order to remain within presently allotted ceilings, the Office of the Surgeon General has announced The need for medical corps officers in senior grades assigned to administrative duties is less acute than formerly

A board of officers recently appointed in the Office of the Surgeon General is carefully considering the physical and other qualifications of all medical corps officers of the various components of the Army and their essentiality to the war effort

As a result of this board's study, it is anticipated that a number of separations of the above group will occur in the moderately near future Regular Medical Corps officers will be accorded retirement privileges under the provisions of Section II, Ar 605-245, June 17, 1941, and Reserve, National Guard, and AUS Medical Corps officers will be given the opportunity of returning to the practice of medicine in a civilian status by relief from active duty or discharge —*Release from the Office of the Surgeon General, Dec 15, 1944*

Army Microfilms Medical Journals

THE microfilming service of the Army Medical Library is keeping Army medical officers at remote installations in e [illegible] the latest publsi

Starting with [illegible] 1943 the list of [illegible] to forty four covering the whole field of medicine These are filmed immediately upon publication Sent by air mail, military intelligence, or diplomatic pouch, the rolls of film are in the hands of medical department personnel all over the world within fifteen days

In addition to the medical journals, unpublished [illegible] cent development [illegible] n request are

The microfilm process saves approximately 95 per cent of shipping space One 100-foot roll, for example, holds about 1,300 pages, or from twelve to fourteen journals [illegible]

Four Members of Typhus Commission Decorated

A WARD of the United States of America Typhus Commission Medal to four members of the commission was recently announced by the War Department, as follows

To Col Harry A Bishop, Medical Corps, Medical Section, Headquarters Mediterranean Base Section

For exceptionally meritorious conduct in the performance of outstanding services from December 28 1943 to February 19 1944 at Naples Italy Colonel Bishop was placed on duty with the American Typhus Commission at Naples at the height of a typhus epidemic in that city As coordinating and executive head of its program he directed the training of military and civilian personnel in typhus control their organization into effectual teams and the securing of needed equipment and supplies The efficient manner in which this task was accomplished despite the lack of trained personnel and adequate supplies is reflected by the rapidity with which the disease was brought under control By his forceful leadership and application to duty Colonel Bishop aided materially in alleviating suffering and preventing what might have become a major catastrophe

To Capt Edward Harvey Cushing, Medical Corps, United States Naval Reserve

For meritorious service in connection with the work of the United States of America Typhus Commission On Captain [illegible] which Captain Cushing had made to the planning of the first overseas expedition of the United States of America Typhus Commission he added personal service of high order in his forceful and tactful administration of the activities of the commission during a difficult period at its first station in the Middle East

To Dr Alexander G Gilliam, senior surgeon, United States Public Health Service

[illegible] among native Egyptians During the latter part of 1943 he made surveys of typhus fever in India and in China While engaged in the investigation of scrub typhus fever in Burma [illegible]

To Dr. Fred L. Soper, field staff member of the International Health Division of the Rockefeller Foundation:

"For meritorious service in connection with the work of the United States of America Typhus Commission. As one of the original members of the commission, Dr. Soper contributed to the organization of its first expedition to Egypt and to the direction of its first field studies in typhus control In the latter part of 1943 and early in 1944, as head of the Rockefeller Foundation group in Italy, he cooperated with the United States of America Typhus Commission in stopping the outbreak of typhus fever at Naples. Dr. Soper placed at the service of the commission his many years of distinguished service in the administration and operative control of epidemic diseases."—*J.A.M.A., Dec. 16, 1944*

Army Recruiting Student Physical Therapists

THE Army has issued a call for women to become student physical therapists. After serving an apprenticeship in Army hospitals, those who qualify will be commissioned as second lieutenants in the medical department.

Applicants must be women under 38 who are college graduates with a major in physical education or biologic science. They must meet citizenship and physical requirements, and have no dependent children under 14 years of age.

Women who meet these qualifications may apply to the Civil Service Commission or the Surgeon General, U.S. Army, Washington, D.C., for appointment as student physical therapy aides with a yearly salary of $1,440. Upon satisfactory completion of six months' training in Army general hospitals, students become apprentice physical therapy aides at a yearly salary of $1,620, and serve a six-months' apprenticeship with emphasis on the treatment of war injuries. Appointments to this latter position are also available to students who have completed an approved six-months' course in physical therapy conducted in civilian institutions.

Those who complete their apprenticeship satisfactorily will be commissioned as second lieutenants with a yearly salary of $1,800, an allowance of $21 monthly for subsistence, and an initial clothing allowance. These officers will serve as physical therapists in the Army Medical Department, and will be assigned wherever needed in this country or overseas.—*Release from the Office of the Surgeon General, Dec. 15, 1944*

County News

Albany County

Dr. Arthur J. Wallingford was elected president of the county society at the annual meeting on December 13 in the Albany College of Pharmacy Auditorium. He succeeds Dr. John B. Horner.

Dr. Raymond G. Leddy was elected vice-president. Re-elected were Dr. Homer L. Nelms, secretary; Dr. Frances E. Vosburgh, treasurer; Dr. Emerson C. Kelly, historian.

Dr. Stanley E. Alderson, Dr. James S. Lyons, and Dr. Donald D. Prentice were elected delegates to the convention of the Medical Society of the State of New York, with Dr. Jacob L. Lochner, Dr. James A. Hogan, and Dr. Clarence A. Traver as alternates. The following were elected members of the board of censors: Dr. Horner, Dr. James W. Bucci, Dr. John J. Clemmer, Dr. Edward P. McDonald, and Dr. Conrad A. Rissberger.*

• • •

Lt. Col. C. Stuart Welch, former assistant attending surgeon on the Albany Hospital staff, is the hero in a story from Germany about a miracle of front-line surgery during the peak of the United States Ninth Army battle along the Siegfried line.

The story, written by International News Service Correspondent Frank Conniff, says Colonel Welch removed an inch-long shrapnel fragment from the heart of an American officer.

The delicate ninety-minute operation was performed by Colonel Welch while the wounded officer's heart lay exposed. The surgeon later said it was the first of its kind among "thousands" of cases handled on the front since D-day.

The patient, the report states, is recovering and will suffer no permanent effects from the rare piece of surgery. The results are even more remarkable in light of the fact that the wounded man carried the fragment in his heart more than twelve hours before going under the surgeon's knife.

Col. Welch was assistant professor of surgery at Albany Medical College in 1937.*

Bronx County

The regular meeting of the county society was held at Burnside Manor on December 20 at 8:30 P.M. The program consisted of an executive session, followed by a lecture, "Recent Advances in the Treatment of Diabetes," by Dr. Elliott P. Joslin, with discussion by Drs. Samuel Gitlow and Frederick W. Williams.

Broome County

The annual dinner meeting and election of officers of the county society was held in the Binghamton Club on December 12 at 6:30 P.M., Dr. Frank G. Moore, of Endicott, the retiring president, announced.

Speaker at the affair was Andrew Spurgeon Beshore, an author, traveler, and humorist, of Harrisburg, Pennsylvania. Former director of vocational rehabilitation for the State of Pennsylvania, Mr. Beshore discussed "Antidote for the All-American Headache."

Wives of members of the society serving in the armed forces were guests.

The names of the new officers will appear in a later issue.*

Chautauqua County

The monthly meeting of the Jamestown Medical Society was held at the Hotel Jamestown on November 30. A paper on "Heart Disease" was read by Dr. Peter Vitanza and discussed by Dr. Frank P. Goodwin. A resolution was unanimously adopted urging the appointment by the City Council of a full-time laboratory director.*

Dutchess County

Dr. Edgar F. Powell, of Fishkill, has been appointed Dutchess County deputy medical examiner.

Dr. Powell is familiar with the processes of law-

* Asterisk indicates that item is from a local newspaper.

enforcement bodies, having served the State Police in [illegible]

Powell won a citation serving brilliantly in rgeant in Company L, 307th Infantry, 77th Division. He was cited by General Pershing on Jun [illegible] was also cited by Maj. [illegible] "valorous conduct and [illegible] -ranking officers [illegible] wounded in the battle of the Argonne forest, Sergeant Powell assumed command and reorganized the company, *leading his company forward until he was wounded.**

Erie County

A two-pronged attack on pulmonary tuberculo- [illegible] Department.

Dr. J. Herbert Donnelly, now serving as acting director on a part-time basis, was recommended for the full-time directorship.

Classifications for whom chest x-ray would be mandatory include: all public employees handling children's groups—physicians, dentists, nurses, hospital personnel, and teachers; service-trade workers coming in close contact with the general public—barbers, hairdressers, beauticians; all food handlers; all domestics—nursemaids and household servants.

All mandatory x-raying would be performed at public expense as a public-health obligation. The *resultant saving in treatment costs from early* discovery of presence of the disease would far outweigh the x-raying costs, it was held.

In endorsing this tuberculosis control program, the society lent impetus to the movement initiated by the Buffalo-Erie County Tuberculosis Association's special advisory committee for expansion of local tuberculosis services.*

• • •

"Recent Developments in Medicine Which Will Result in Prolongation of Life" was discussed by Dr. A. H. Aaron at the Twentieth Century Club, Buffalo, on December 6.

Dr. Aaron, professor of clinical medicine and chairman of the department of postgraduate and [illegible] of the county society. He also is president of the American Gastroenterological Association and is active in various other medical bodies.*

Kings County

The county society and the Academy of Medicine of Brooklyn met on December 19 at 8:45 P.M. in Mac[illegible] T[illegible] program consisted of t[illegible] and Some Other Asp[illegible] Dr. William Dock, prof[illegible] Island College of Medicine, and "The Kenny Concept of the Disease Infantile Paralysis: How to Prevent Deformities and How to Give Early Diagnosis" (illustrated by motion pictures), by Sister Elizabeth Kenny, of Minneapolis, Minnesota.

Election of officers for 1945 also took place. The names of the new officials will appear in a later issue.

• • •

Dr. Emanuel W. Lipschutz, Brooklyn, was recently appointed adjunct professor of gastroenterology at the New York Polyclinic Medical School and Hospital.

Monroe County

Dr. Donald G. Anderson, of Boston University, spoke on penicillin on December 5 at the Rochester Academy of Medicine.*

Nassau County

The wives of members in service were guests of honor at the annual dinner dance of the county society at the Garden City Hotel on December 9. [illegible]

Gaillard, Baldwin; J. M. Galbraith, Albert M. Bell, *Glen Cove; R. Galione, Roslyn; Stephen F. Gerde,* Freeport; H. S. McCartney, Mineola; E. K. Horton, Rockville Centre; C. Edwin Woods, Westbury; A. B. Johnson, Cedarhurst; A. B. Robbins, Woodmere; A. F. Calvelli, Lawrence; Jacob Blinn, G. S. Reiss, Long Beach; George E. Christmann, James F. Hollister, Valley Stream; E. N. Whitcomb, Port Washington; Rudolph Dery, Lynbrook; and P. H. Sullivan, Great Neck.

Members of the woman's auxiliary assisted the committee on arrangements.*

• • •

Recently placed on the inactive list after twenty-seven months of service with the U.S. Army, Capt. Aaron I. Levis, of Woodmere, has resumed his private practice of medicine. As a ship's surgeon, Levis saw service in North Africa and Italy.*

• • •

The county society has endorsed a state-sponsored program for voluntary health insurance, according to Dr. Frederick E. *Elliott,* medical director of the [illegible] Dr. Elliott was guest [illegible] Woman's Auxiliary to [illegible] Hospital auditorium, [illegible] ready, he added.*

New York County

The following editorial, entitled "Hail and Farewell," appeared in the December 23 issue of the County Journal:

"The present issue of the *Journal* of the Medical Society of the County of New York will be the last presented by the Society under the present title and format. The next issue of our publication will appear on January 5 under the title *New York Medicine* and with the subtitle 'Official Publication of the Medical Society of the County of New York.' Thereafter, *New York Medicine* will be published on the fifth and twentieth of each month throughout

the year. It will offer several new departments of interesting and valuable reading matter and comment on current affairs.

"In general, the editorial policy of the Journal will be carried forward without spectacular alteration in *New York Medicine*. However, it is planned to develop gradually a working editorial board representative of various aspects and institutions of medical practice. Through this board we hope to present a lively and progressive commentary on the current problems, opportunities, and responsibilities confronting New York physicians.

"As 'the old order changes, yielding place to the new,' we bespeak for your new publication the same degree of interest and support for which the editors of this Journal are profoundly grateful."

• • •

The detailed policy contract of the United Medical Service, Inc., the health insurance plan organized under guidance of the medical profession, received the official approval of the Medical Society of the County of New York at its meeting on December 18.*

• • •

Dr. Harry Benjamin, of New York, gave a memorial address entitled "Eugene Steinach, a Tribute" on December 4 before the Rudolf Virchow Medical Society at the New York Academy of Medicine.

• • •

The Annual Conference of the New York Tuberculosis and Health Association will be held on February 7 at the Hotel Pennsylvania.

There will be section meetings in the morning on tuberculosis, social hygiene, and dental health. A luncheon meeting on public health will be held in the Grand Ballrooom at 12:45 P.M. In the afternoon there will be sessions on tuberculosis rehabilitation, health education, and social hygiene.

Among the speakers who have accepted invitations to take part in the day's meetings are Bailey B. Burritt, Dr. William M. Dunning, Dr. Herman E. Hilleboe, of the United States Public Health Service, Dr. David J. Kaliski, Dr. B. S. Pollak, of the Hudson County Tuberculosis Hospital, Jersey City Medical Center, Dr. H. McLeod Riggins, Dr. John E. Runnells, and Professor C. C. Wilson, of Teachers College.

• • •

A 73-year-old self-taught bacteriologist and serologist—fifty years ago a $17-a-month porter, scrubbing floors and windows and polishing brass for the New York Eye and Ear Infirmary—was honored on December 13 for his achievements in science.

Dr. Edgar B. Burchell, bacteriologist and attending serologist of the New York Eye and Ear Infirmary, was appointed Honorary Fellow in the American Academy of Ophthalmology and Otolaryngology, the largest medical association of eye, ear, nose, and throat specialists in the world. He will be the first person without an M.D., the first layman to be so honored.

At the ceremony in Weeks Hall, Dr. Burchell also received a gift and a jubilee award from the members of the hospital.

Though he is known as Dr. Burchell by his colleagues who are themselves M.D.s, he has never had more formal education than that supplied in the primary grades of New York City public schools. He has been called doctor since 1936 when he received the honorary degree of Doctor of Science from Roanoke College, in Salem, Virginia.

Dr. Burchell is regarded as especially expert on eye and ear diseases. In 1931 when the former King Prajadhipok of Siam came to the United States to have a cataract removed from his left eye by the late Dr. John M. Wheeler, Dr. Burchell was called in as consulting bacteriologist. He made the preliminary examination of the conjunctiva to determine if the eye was bacteria-free and if it was safe to go ahead with the operation. The examination showed the conjunctiva was free from bacteria and the operation was successful.

Dr. Burchell now does general laboratory work, especially pertaining to eyes, ears, nose, and throat, has eight laboratory assistants, and works seven and a half hours each day. He also teaches at the Eye and Ear Infirmary.*

Onondaga County

Syracuse physicians head the staff of a U.S. Army general hospital set up in the European theater of operations which has become known not only as one of the first U.S. Army hospitals to function in the war zone, but as one of the most efficient, according to a censored dispatch from the public relations section of headquarters of a United Kingdom base.

Lt. Col. Richard S. Farr and Lt. Col. Wardner D. Ayer, both Syracuse physicians, organized a group of medical and administrative personnel which formed the unit, activated September 1, 1942, at Camp Livingston, Louisiana, under command of Col. A. W. Greenwell, of Cornwall-on-Hudson.

The unit received training at Camp Livingston and in a staging area, under command of Lt. Col. George W. McCoy, Jr., of Fairhaven, Mass., and then went overseas with Lieutenant Colonel Farr in command.

Lt. Col. Arthur B. Raffl, MC, of Syracuse, is chief of surgical service. Formerly a staff surgeon at Syracuse Memorial Hospital, Col. Raffl has coordinated the surgical service into one of the most efficient in the theater of operations.

Colonel Raffl, a veteran of World War I, pointed out that in this war the remarkable strides of medical science have given the soldier more than an even chance to recover from his wounds, and that there is almost no gas gangrene type of infection, so prevalent in the other war.

The orthopaedic section, headed by Maj. John B. Stevens and Capt. George M. Kirkwood, Syracuse surgeons, has created an outstanding record for orthopaedic surgery in this theater, according to the dispatch.

Lt. Col. Tyree C. Wyatt, MC, chief of laboratory service, who formerly taught pediatrics and pathology at the Syracuse University Medical College, has introduced new laboratory technics in blood transfusions and pathologic procedures. Lt. Col. Ayer also formerly taught at the medical school and, since his arrival overseas, has lectured at the University of Birmingham and at many British meetings.

Lt. Col. Foster C. Rulison, chief of x-ray service, also serves as chief consultant for a base section in the zone. Col. Rulison, a graduate of Syracuse University College of Medicine, with his assistant, Capt. David W. Brewer, instituted a photo laboratory in connection with the x-ray service.

The dental clinic, supervised by Lt. Col. H. Membrey Roblin, who served at Camp Upton in World

[Continued on page 202]



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1 Wolf, I J Treatment of Rickets with a Single Massive Dose of Vitamin D, J Med Soc New Jersey, *38* 436 (September) 1941

2 Wolf, I J Prevention of Rickets with Single Massive Doses of Vitamin D, J Pediat, *22* 396 (April) 1943

3 Wolf, I J Safety of Large Doses of Vitamin D in the Prevention and Treatment of Rickets in Infancy, J Pediat. *22* 707 (June) 1943

4 Rambar, Alwin C, Hardy, L and Fishbein, W I Hematologic and Radiologic Study of Infants Receiving Massive Doses of Vitamin D in Rickets Prophylaxis, J. Pediat, *23* 31 (July) 1943



[Continued from page 200]

War I as a first lieutenant, is one of the busiest clinics in the hospital with outpatients as well as regular patients.

The eye, ear, nose, and throat clinic is headed by Maj. Gordon D. Hoople, who also serves as consultant to an army hospital center in England and as unit historian.

Maj. Philip R. Chase, MAC, the hospital's registrar, has charge of all patients' records, and his department has drawn high praise for its careful handling of wounded coming in on hospital trains.

The detachment commander, Lt. James T. Cross, has gained the confidence and unqualified cooperation of the entire detachment by his leadership and understanding of enlisted men of the unit.

"The hospital's record of achievements in the European theater of operations," the dispatch ends, "can be summed up in one word—cooperation. Every officer, nurse, and enlisted man, from the commanding officer to private, takes a personal pride in the appearance, reputation, and record of of the unit."*

Ontario County

"Medicine After the War" was discussed by Dr. C. W. Grove at the second of a series of meetings of the men of the North Presbyterian Church held on November 28. Theme of the series is "Geneva After the War."

He cited the probable advance in control of malaria, pointing out that soldiers in this war have had greater protection from malaria than was ever before available. Although in the United States proper the disease is rarely encountered, except in some of the Southern States, 40 per cent of the human race is affected by its ravages.

The speaker advocated a modified form of socialized medicine, and the topic proved most controversial in a lively discussion from the floor, which followed the formal address. Refreshments were served after the meeting.*

• • •

Canandaigua Medical Society met on December 1 in the Canandaigua Hotel, with Dr. D. A. Eiseline, of Shortsville, as host.*

Orange County

The one hundred thirty-eighth annual meeting of the county society was held on December 10 at Bob's Village Inn, Montgomery. Dr. Walter I. Neller, the retiring president, presided. Officers for 1945 were elected. They are: president, Dr. George E. Kenny, Port Jervis; vice-president, Dr. Ralph Waldo Thompson, Cornwall-on-Hudson; secretary-treasurer, Dr. Earl C. Waterbury, Newburgh; censors: Drs. Hugh M. Brewster, Port *Jervis, William J. Hicks, Middletown, Charles W.* Layne, Newburgh, and Homer L. Stephens, Walden; delegate to the State Society, Drs. Theodore W. Neumann, Central Valley; alternate, Dr. Charles B. Reed, Newburgh; delegates to the First District Branch, Drs. Neller, Middletown, and Earl R. Van Amburgh, Pine Bush.

The speaker of the evening was Dr. Robert S. Cleaver, of Brewster. Dr. Cleaver is medical consultant on welfare cases in Putnam County, where the plan has been in operation for the past year.

Many interesting points of the plan were discussed by Dr. Cleaver and Dr. M. A. Stivers, of Middletown, who has recently been appointed to a similar position in Orange County.

Otsego County

The following is a list of the 1945 officers of t county society as elected on December 13, 19 president, Dr. Charles H. Peckham, Jr., Coope town; vice-president, Dr. Paul Von Haesel Gilbertsville; secretary, Dr. Marjorie F. Murr Cooperstown; treasurer, Dr. John M. Constanti Oneonta; censor, Dr. Norman W. Getman, O onta; delegate to the State Society, Dr. Mahlon Halleck, Worcester; alternate delegate, Dr. Pe ham.

Queens County

Dr. Vincent Juster, of Jamaica, was nam president-elect of the Queens Medical Society at t annual meeting held on November 28 in the Medi Building, Forest Hills.

Dr. Edward V. Veprovsky, of Flushing, nam president-elect last year, now becomes preside succeeding Dr. W. Guernsey Frey, of Forest Hills.

Other officers of the society elected were: sec tary, Dr. Ezra A. Wolff, of Forest Hills; assi ant secretary, Dr. Leo Goldberg, of Jamaica; tre urer, Dr. Arthur A. Fischl, of Long Island Ci assistant treasurer, Dr. Lawrence M. Waterhouse, Jamaica; historian, Dr. Joseph S. Thomas, of Flus ing; directing librarian, Dr. Alfred Angrist, Jamaica; assistant librarian, Dr. Anoch Lewert, Jamaica; trustees, Drs. Thomas M. D'Angelo, Jackson Heights, Walter Lynn, of Ridgewood, a Daniel J. Swan, of Flushing; censors, Drs. John Lowry, of Flushing, Meyeron Coe, of Queens V lage, Louis A. Sarrow, of Rockaway Beach, a Henry A. Reisman, of Jamaica; State Socie Delegates (two years): Drs. Frank Cerniglia, Forest Hills, Goodwin A. Distler, of Woodhave Joseph D. Hallinan, of Richmond Hill, W. Guerns Frey Jr., and Juster—(one year)(Dr. Erwin Bec hard, of Flushing, Dr. Joseph Wrana, of Jamai and Dr. Fischl.

Dr. Juster, the president-elect, is a surgeon. D Veprovsky, the incoming president, is a gynecol gist. He formerly practiced in Astoria.*

Schenectady County

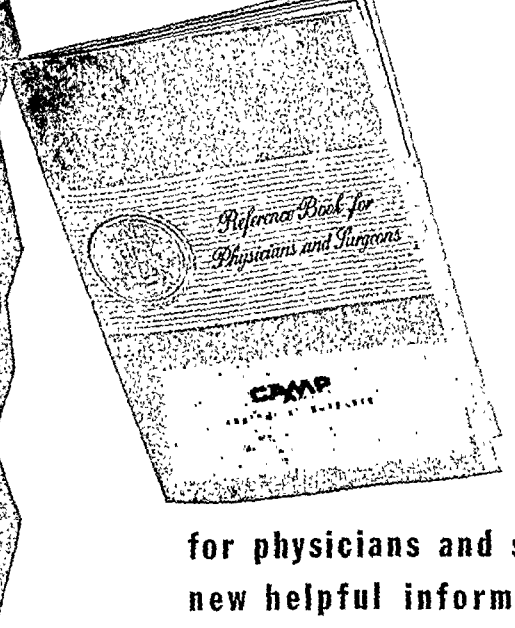
The following officers were elected for 1945 at t annual meeting of the county society, December 1 president, Dr. D. Glen Smith, Schenectady; vic president, Dr. William E. Gazeley, Schenectad secretary, Dr. Nelson H. Rust, Scotia; treasure Dr. Alfred S. Grussner, Schenectady; delegate (tv years), Drs. Charles F. Rourke, Schenectady, Jam M. Blake, alternate, Schenectady; censors: Dr James J. York, Schenectady, Harry E. Reynold Schenectady, and Garrett M. Clowe, Schenectad compensation committee, Drs. William E. Gazele Edwin M. Stanton, Philip Parillo, Scotia; delega to the Fourth District Branch, Dr. Ralph D. Rei Schenectady; alternate, Dr. Ralph E. Isabell Schenectady.

• • •

The Medical Society of the County of Schenectad has joined other groups and individuals seeking th establishment of a mental hospital and clinic i Schenectady County. In a communication read a the monthly meeting of the Board of Supervisors o November 14 the society urged the board to act o the matter and offered its full cooperation in th establishment of such an institution.*

[Continued on page 204]

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[Continued from page 202]

The regular monthly meeting of the county society was held at the Ellis Hospital Library on January 2, at 8:30 P.M. Dr. Raymond W. Lewis, roentgenologist at the Hospital for Special Surgery in New York City, spoke on arthritis. The lecture was discussed by Drs. G. M. Clowe, H. E. Reynolds, and K. L. Mitton.

Deaths of New York State Physicians

Name	Age	Medical School	Date of Death	Residence
Fred D. Andrew	88	P. & S., N.Y.	December 11	Rochester
Max Bacharach	49	Wurzburg	September 12	Maryland
Pasquale de Caprariis	73	Naples	December 10	Brooklyn
Ralph M. De Graff	52	Buffalo	December 13	Buffalo
Monroe B. Gall	32	Strasburg	August 5	Bronx
Francis A. Glass	54	Fordham	December 14	Haverstraw
Eugene M. Holleb	32	N.Y. Univ.	October 14	Manhattan
Harry J. Knapp	72	L.I.C. Hosp.	December 17	Manhattan
Hugh M. Magee	66	Syracuse	November 18	Syracuse
Francis X. Matera	64	Naples	October 23	Brooklyn
Otho L. Monroe	61	P. & S., N.Y.	December 11	Manhattan
George S. Munson	88	Albany	December 9	Albany
Parker Murphy	76	Albany	December 18	Rochester
Walter Neufeld	..	Vienna	October 16	Copenhagen
Edward K. Richard	51	P. & S., N. Y.	November 15	Olean
Joseph Rosenberg	68	L.I.C. Hosp.	December 7	Manhattan
Abraham S. Sanders	67	Denver & Gross Colo.	July 28	Brooklyn
Archibald W. Thompson	53	Buffalo	October 22	Buffalo

PROGRAM ON TRAUMA AND CARDIAC DISABILITIES

The New York Cardiological Society announces the inauguration of a project to study the role of trauma in the causation of cardiac disabilities. The work is planned as a continuing series of investigations and reports, with subcommittees on clinical statistics, on experimental investigation, on pathology, and on the medicolegal aspects. The general objective of the entire research is to study all angles of the relationship between trauma and heart disease and to formulate, on the basis of the widest investigation possible, a reasonable code for the guidance of expert opinion.

The project grew out of a suggestion of Dr. Raphael Lewy, Chief Medical Consultant of the Workmen's Compensation Bureau of the New York State Department of Labor. Dr. Lewy, now retiring after active service of over thirty years, said that expert opinions have shown such wide variance that it is of paramount importance for some dispassionate and competent body to examine all evidence in the literature and conduct such investigations as will produce a set of reasonable criteria that will have authority and general acceptance.

Funds for the work are being provided out of the Society's treasury and by various grants. An introductory meeting is planned for January 24, 1945.

All interested organizations, practicing physicians, and officials are invited to participate in the program or in the discussion. The meeting will take place at the New York Academy of Medicine; communications should be addressed to the secretary of the society, Dr. Philip Reichert, 480 Park Avenue, New York 22, New York.

N. Y. U. OFFERS POSTGRADUATE COURSES

The New York University College of Medicine has announced that it will give three postgraduate courses, starting in February, 1945:

1. Internal medicine—under the direction of Clinical Professor Charles H. Nammack, director of the Fourth Medical Division of Bellevue Hospital, and associates.

2. Clinical gastroenterology—by Assistant Clinical Professor Zachary Sagal. This course is designed for practicing physicians who wish to review the subject and acquaint themselves with the recent advances made in this field. The medical treatment and differential diagnosis of gastrointestinal conditions will receive special attention. The lectures will be preceded by demonstration on patients in the wards.

3. Arthritis and rheumatic disorders—by Assistant Clinical Professor Otto Steinbrocker and his staff.

For further information communicate with the Secretary of the New York University College of Medicine, 477 First Avenue, New York 16.

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Health News

Some Dividends from Communicable Disease Control in the Westchester County Health District*

TO ATTEMPT to evaluate public health activities by means of statistical proof of definite accomplishments is extremely difficult. This is so because personal and public health are intangible values that cannot be weighed or measured. Moreover, changes may be very gradual and are seldom the result of a single cause. In no other field of endeavor are comparisons so treacherous. This is true not only when the comparison concerns different places but also the same place at different times.

Communicable disease control activities are especially difficult to evaluate since in addition to the many variable factors involved the results are largely of a negative character. We know who has diphtheria or typhoid fever or smallpox but we do not know who would have had one of these diseases but for the efforts of the medical profession and the health authorities. There are diseases like smallpox and diphtheria means for the virtual extinction of which are available. Our knowledge of the prevention of some of the other diseases is not so complete. All we can hope to do with some of them is to attempt through isolation and quarantine to shield the individual from an attack until a possible natural immunity has developed or to postpone the attack in young or sickly children until they are better able to withstand it. Who these protected individuals are we do not know; they cannot be counted. We can pick over a barrel of apples and remove the rotten ones but we cannot tell which or how many of the sound apples would have become decayed had not the rotten ones been removed.

For smallpox and diphtheria we have specific means of prevention the extent of the employment of which can be gauged and the results measured in a rough way. During the ten years 1930–1939 approximately 25,000 individuals, mostly children, were reported to have been vaccinated against smallpox. This does not represent the total number vaccinated, since many vaccinations no doubt were performed by private physicians but never reported. Most of the vaccinations on record were performed in health department clinics. During the same ten-year period there were but three cases of smallpox in the health district. Two of these were found to have been contracted outside the State by a father and son who had visited relatives in a community where smallpox was prevalent. The other patient contracted the only secondary infection to occur in our health district. Prompt, effective quarantine plus the many vaccinations performed at that time and in previous years undoubtedly were instrumental in controlling the spread of the infection.

Diphtheria is another disease that lends itself readily to control through quarantine measures and to prevention through artificial active immunization. During the ten years from 1930 to 1939 slightly over 40,000 children were reported to have received the diphtheria immunization treatment. Here again the number is not complete, representing for the most part children treated in health department clinics. Prior to the organization of the health department in 1930 a large number of these treatments had been given, but mostly to school children, whereas the disease had been much more fatal in the preschool group. By 1934 it was estimated that 60 per cent of all children in the health district between 6 months and 5 years of age had received the diphtheria immunization treatment. By 1938 this percentage had risen to 70. It has since been increased to 72. What has been the effect of all this preventive work on diphtheria during this period? In 1929 there were 130 cases and 8 deaths attributed to that disease in the health district. The average annual number of cases for the five years 1925–1929 had been 125. In 1939 there were but 5 cases with no deaths. While the numbers of cases have varied between one and 9 per year since then, there have not been any diphtheria deaths.

With the improvement in our environment and in our water and food supplies, typhoid fever is fast becoming a relatively rare disease. In 1930 there were 48 cases in the health district. In 1939 there were 11. Since then the yearly total has been as low as 2. The few scattered cases that continue to occur are due in most instances to food prepared by a typhoid carrier for private consumption, often in the same home. During the first ten years of the health department 17 newly discovered typhoid carriers were picked up through the efforts of the staff and placed under constant supervision. Prior to 1930 there were only 6 known carriers in the district. By 1939, allowing for deaths and removals, the number had increased to 20. Not one of these carriers is known to have been the cause of a single case of typhoid fever in the health district since he or she was discovered and placed under supervision.

Among the communicable disease activities carried on by the department is a consultation service for diagnosis when the nature of the illness is in doubt. The records of this type of service, which are incomplete for 1930, show that during the ten years from 1930 to 1939 approximately 1,500 cases of suspected communicable disease were seen by department physicians for diagnosis.

In neither measles nor whooping cough can the dissemination of infection be effectively controlled. This fact is due, among other things, to the high degree of susceptibility prior to an attack, the extreme ease with which the infection is communicated, and the occurrence of a prodromal period of several days in both diseases during which the nature of the illness may not be recognized but during which it is very infectious. In addition to these obstacles to the control of infection in those cases that are reported, there are many other missed cases—i.e., cases that for one reason or another are not brought to the attention of the health department and in which little or no control is exercised.

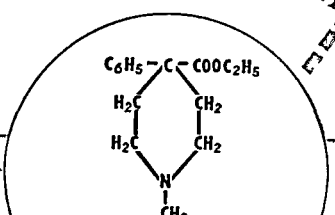
The medical profession and health authorities have, therefore, had to fall back on efforts to limit the mortality which in both measles and whooping cough is greatest during the first three or four years

[Continued on page 208]

* The material in this article was assembled by Dr. Edward A. Lane, Director of the Division of Communicable Diseases, Westchester County Department of Health.

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[Continued from page 206]

of life. During the ten years from 1920 to 1929 there were 82 deaths from measles and 117 from whooping cough. The corresponding figures for the following decade are 26 and 46, respectively. Moreover, this decrease occurred in the face of a rapidly increasing population that in 1925 was 217,000, and by 1935 had mounted to 300,000.

Undulant fever, a disease that can be controlled by improving the sanitary quality of the milk supply, appears to be becoming less prevalent as local herds of cattle are freed of Bang's disease and larger percentages of milk are pasteurized. During the first five years of the health department's first decade 20 cases of undulant fever were reported. During the second half of the decade there were but 10 cases.

Canine rabies was unduly prevalent in the health district in 1936, when the number of cases increased from 5 the previous year to 55. From 1936 to 1939, inclusive, there were 151 cases. During the previous four years there had been but 13. Little can be done to control the spread of the infection among dogs because of the difficulty in securing enforcement of the necessary control measures. Every effort has been made by the department, however, to prevent the development of human cases by furnishing antirabic vaccine free of charge to all who need it and by making sure that everyone bitten by or in contact with a rabid animal receive the necessary medical care. Despite the large number of rabid animals in the health district during the past few years, there has not thus far been a single case of human rabies since the organization of the health department.

FOR YOUR INFORMATION

Thirty-four thousand nurses have now been classified in New York State. These include 2,200 recent graduates, of which one-third are available for military service.

As of September 1, 1944, 24,735 Army nurses were on duty overseas. Nurses are serving on twenty-four hospital ships, thirty-one hospital trains; also in air evacuation both in the United States and overseas. Promotions through the year totaled 5,968.

The National Nursing Council for War Service has been requested by the New York State League of Nursing Education to be the sponsoring agency for the intensive, "on-the-job" head-nurse courses being given throughout the State. At present, eight "trainers" who participated in the workshop held at Teachers College on "Materials and Methods of Head-Nurse Instruction" are conducting courses for head nurses in their own institutions. Some of these have invited head nurses from schools of nursing in the area to enter the course. Most plan to repeat the course and several expect to commute to other areas where there is a need for head-nurse instruction. At least one New York State nurse is attending a workshop at Catholic University and will join the list of "trainers" in the near future.

At present, another workshop is being held at Teachers College. This one is for "trainers" of supervisors and instructors in schools of nursing and public health agencies.

The State Nursing Planning Committee has had one meeting. A subcommittee is at work outlining objectives of the Planning Committee and assembling information on any nursing objectives now under way, planned, or needed, that relate to those objectives.

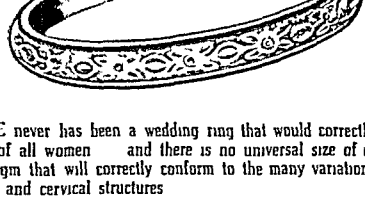
A total of 12,554 students are enrolled in New York State schools of nursing this year as compared with 8,826 in 1941.—*Minutes of National Nursing Council for War Service, September, 1944*

A MESSAGE TO NURSES—FROM FRANCES PAYNE BOLTON

"One thing I know," reports Mrs. Frances Payne Bolton in the January, 1945, *American Journal of Nursing*, after a two-months' visit to hospitals of England and areas of France which have been liberated, "were I fit and young enough and trained nothing would keep me from meeting the greatest challenge American life has ever given women who are nurses. If I were trained in nursing or physical therapy or as a nurse's aide and unable to go overseas I would apply for service in our hospitals here to which these men of ours are coming by the thousand. I wouldn't miss the experience altogether. I wouldn't go into it just because of the terrible need our wounded have for care: I would do it partly because I know I couldn't face myself in the years that inevitably come, when one looks back on life, if I had let the opportunity to live deeply pass me by.

"Yes, I have had a rich experience but an infinitely richer one awaits you who are trained, you who are young. The Army, the Navy, and the veterans hospitals, all of them need you, but the Army most of all. I say 'the Army'! But it is the men that need you—your men—who have thrown themselves against the most fiendish enemies that decent, clean, wholesome living has ever known. It is your own men who look to you consciously or unconsciously, knowing that wherever women are, trained women most of all, there can be found the new courage, the fresh hope, and the renewed faith they need to carry on the war and to face the hard road back to normal living."

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Extension of Insulin Shock Therapy in State Institutions for Insane Recommended by Commission

A new type of treatment of the dementia praecox form of insanity, known as insulin shock therapy, which was devised by Dr. Manfred Sakel and brought to this country from Vienna in 1936, should be made available to praecox patients in all the State hospitals for the insane, the Temporary Commission on State Hospital Problems recommended in a report submitted to Governor Dewey on August 26.

The report was presented by Homer Folks, Chairman of the Commission.

The recommendation was based on the results of an intensive study made by the Commission of 1,128 dementia praecox patients treated with insulin shock therapy at the Brooklyn State Hospital in five and a half years and a comparable group of 876 patients admitted to State hospitals in the metropolitan area who did not receive that form of treatment.

"The insulin treated patients did substantially better in all respects than the nontreated patients," the report stated.

The tests used in measuring the effectiveness of the treatment were the subsequent ability of patients to leave the hospital and return to normal living at home; the length of hospital stay before leaving; the length of time patients were able to remain at home, and the extent to which they were restored to usefulness.

The report revealed that 79.5 per cent of the insulin treated patients were able to leave the hospital, as against 58.8 per cent of the nontreated group, and after a shorter stay. At the end of the study, between five and a half years and six months after release, 58.9 per cent of those who had received the shock treatment were at home, compared with 44 per cent not so treated. 55 per cent of the insulin patients were useful members of the community, in contrast to 40.5 per cent of the nontreated patients. Many were earning their living or more, and some were getting along better than before they became ill.

To put the findings into effect the Commission recommended that the State Department of Mental Hygiene make the new treatment available to all dementia praecox patients, unless they are not eligible for it for physical or other reasons, "unless and until other forms of treatment have demonstrated still better results."

The Commission stressed the importance of more effective treatment of dementia praecox because one of every four new patients admitted to the State hospitals suffers from that type of disorder, and since large numbers of them remain for protracted periods they comprise between 50 and 60 per cent of all the patients in those hospitals.

The report estimated that the insulin treatment in the Brooklyn institution had "effected a saving of 286,695 days of hospital care, a saving of $80,274.60 in cost of food and clothing, a substantial though undetermined saving in maintenance costs, and a still larger saving, ultimately, in construction costs."

The Commission recommended that to secure a consistent use of insulin therapy throughout the State hospital system a Consulting Service be established in the State Department of Mental Hygiene to assure adequate records; to hold consultations with hospital staffs in the interest of high standards of treatment, to make follow-up studies, and to provide special courses at the State Psychiatric Institute and Hospital for training personnel to administer the treatment.

The report stated that qualified and experienced social workers should be made available in each hospital in the ratio of one such worker to 60 patients to provide adequate supervision and aid to patients who have received shock therapy and are on parole or in family care.

The report now before Governor Dewey is the second submitted by the Temporary Commission since its appointment in November, 1940, to survey the continually growing population of nineteen State mental institutions caring for approximately 80,000 patients. In a "progress report" submitted to Governor Lehman in November, 1942, the Commission recommended not only extension of shock therapy but increasing the number of patients placed on parole or in family care. It reported that increased effort in these directions had not only halted the rate of increase of patients in the State hospitals, but during a four-month period in 1942, the long-standing average increase of about 2,400 patients a year had given place to a decrease of 78. This was the first such reversal in fifty years of State care of the insane.

The study, under the direction of the Commission, containing experts in the care and treatment of mental disorders, was made largely through personal visits by trained and experienced psychiatric social workers to patients and their families after becoming familiar with the hospital records. Mrs. Minna Field was director of research. A lengthy and comprehensive report, with detailed statistical and other data, gives the results of the study.

"The finding that the highest percentage of improvement, immediate or long range, occurred among those in whom the illness was of short duration . . . . might be utilized in achieving even better results with insulin therapy if something could be done to help identify patients in the early stages of the illness. . . . .

"Even among those groups in which the gains are minimal, either as to the length of time they are able to remain out of the hospital or the level of usefulness they attain, they are sufficiently positive to warrant the giving of insulin because of the benefit derived by the patient, his family, and the community, and the savings effected in hospitalization costs.

"The insulin-treated group was more heavily weighted with patients whose illness was of longer duration and who consequently had a poorer prognosis. Had we been able to match the numbers exactly, the substantially better results shown among the insulin-treated patients would have been even more striking."

Members of the Commission are Homer Folks, Secretary of the State Charities Aid Association, *Chairman;* Stanley P. Davies, Ph.D., Executive Director of the Community Service Society of New York; Miss Hester B. Crutcher, Director of Social Work, State Department of Mental Hygiene; Dr. Lawrence Kolb, Assistant Surgeon General, U.S. Public Health Service; Dr. Nolan D. C. Lewis, Director, New York State Psychiatric Institute and Hospital; Dr. Frederick W. Parsons, former State Commissioner of Mental Hygiene; Dr. William L. Russell, consulting psychiatrist, Payne Whitney Psychiatric Clinic, The New York Hospital; and Dr. George S. Stevenson, Medical Director, National Committee for Mental Hygiene.

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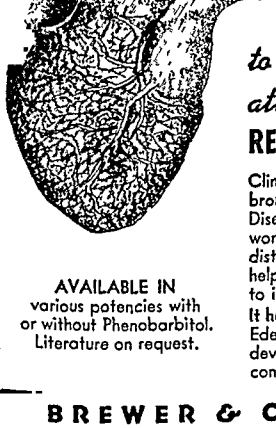
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Industry Plans Assimilation of Disabled Veterans

American industry in a joint program with the War Manpower Commission is girding itself to assimilate wounded veterans into jobs that the disabled would never have been considered capable of handling before, Chairman Paul V. McNutt announced on September 13.

In a pioneer move rapidly becoming nationwide, 2,000 employers in four leading states are analyzing close to two million jobs with a view to measuring their physical demands with the capacities of disabled veterans.

This was Mr. McNutt's first report on the adoption by industry of W.M.C.'s Selective Placement program for the employment of handicapped veterans.

States in which employers are taking the lead are Connecticut, Pennsylvania, California and Michigan. Maryland has similar plans and so have many other states. Employers participating include such major West Coast shipyards as Bethlehem Steel, Todd Shipyards, California Shipyards, U.S. Naval Drydocks, with the Kaiser plants in Oregon cooperating. Large employers in the East and Midwest interested in this movement include Westinghouse, General Electric, United Aircraft, Electric Boat, American Cyanamide, Carnegie-Illinois Steel, Aluminum Corporation, Hershey Chocolate, Crown Can, Ford Motor, Chrysler, Cadillac, Eaton Manufacturing, Radio Corporation of America, Armstrong Cork, and many others.

"Employers are enthusiastically accepting the new job-analysis approach as an excellent tool for industry in placing disabled veterans," Mr. McNutt said. "Under the system, jobs are analyzed in relation to the twenty-seven activities that have now been established as covering the whole field of jobs—for example, walking, handling, fingering, lifting, reaching, seeing, hearing, and so on. Most jobs actually only require a few of these activities. If the physical appraisal of the man shows that he can perform these, he is considered as fit as any able-bodied man for the job. The system is radically different from the guess method used after the last war.

"The key is not what the veteran can't do, but what he can do."

The program was introduced to industry, Mr. McNutt said, through employer institutes, consisting of groups of employers, representatives of personnel and medical departments, and shop foremen meeting in designated plants for training sessions on selective placement. Classes watched job-matching demonstrations at plant machines, often with the disabled veteran giving the demonstration.

Courses were also given, under the tutelage of W.M.C. occupational specialists, at the University of Michigan with the Automotive Council for War Production cooperating, the Detroit Institute of Technology, Michigan State College, University of Connecticut, University of California, and the University of Southern California.

In California the movement has been backed by the Merchants and Manufacturers Association. In Connecticut Selective Service has collaborated. Support has been given by the Veterans Administration, state rehabilitation agencies, the medical profession, churches, schools, businessmen's organizations, and social agencies.

Examples of how job-matching has helped returning disabled veterans whose talents might otherwise be wasted were given by Mr. McNutt. He cited the case of a Hollywood photographer who enlisted in Pearl Harbor at the time of the bombing, and later lost his leg. "Physical demands analysis of his old job," Mr. McNutt said, "showed that it called for walking, standing, stooping, and kneeling to pose his camera and get the right angles. It was out of the question for him to resume it. The U.S. Employment Service found that a newspaper wanted a photographer to receive photographs over its photo-wire system. This requires full use of the hands but in no way calls for any of the capacities this man lost to the Japs. He got the job."

Mr. McNutt also cited the case of a young man in Connecticut who won the Distinguished Service Cross for heroism in the South Pacific, but who lost his left arm in the doing. Upon his return he was put to work as an inspector in a wire-insulating factory, but doing visual inspection only. Under the job analysis approach it was possible to promote him to final inspector of very fine wire, extremely important work which involved special skill in micrometer and gauge reading and which, it was discovered, could be done with one hand. This man did such a good job that later he was made foreman.

"The success of our disabled veterans pioneering the way for the other combat wounded is proving that there is no beneficence in their employment," Mr. McNutt said. "They deliver full value, sometimes outproducing the fellow employee who has no physical disability. The families of our heroes who have come through can rest assured that they will have every chance to make good in the normal working world."

Cities in which W.M.C.-employer institutes have been held are Philadelphia, Pittsburgh, Lancaster, Altoona, York, Reading, Allentown, Easton, Erie, Chester, Scranton, Greensburg, Williamsport, Pennsylvania; Hartford, New Britain, Waterbury, Wallingford, Menchen, New London, Meriden, Bristol, Connecticut; Detroit, Lansing, Muskegon, Michigan; Los Angeles and San Francisco, California.—*Release from the Office of War Information*

HEART ASSOCIATION TO HOLD SESSION

The New York Heart Association, a division of the New York Tuberculosis and Health Association, will hold a scientific session on Friday, January 26, at 8:30 P.M. at the New York Academy of Medicine according to an announcement made by Dr. J. Burns Amberson, president.

Dr. Reginald H. Smithwick, associate visiting surgeon, Massachusetts General Hospital, and instructor in surgery, Harvard Medical School, will speak on "The Surgical Treatment of Hypertension." Drs. William Goldring, James W. Hinton, and Bronson S. Ray will discuss the subject. Dr. Harry E. Ungerleider, associate medical director, the Equitable Life Assurance Society, will speak on "Cardiac Enlargement—Its Recognition and Significance," and Dr. Marcy L. Sussman will open the discussion.

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Pulmonary Tuberculosis Associated with Congenital Heart Disease

It is commonly accepted that individuals suffering from congenital heart disease are prone to develop and later to succumb to pulmonary tuberculosis. Of all patients with congenital heart anomalies it is those with pulmonary stenosis who seem most likely to develop tuberculosis. Whether it occurs more frequently in this group than among a comparable number with normal hearts cannot be stated positively without detailed statistical analyses. Case reports seem to show that tuberculosis is no greater menace in patients with pulmonary stenosis than is their cardiac defect.

It is true, however, that many persons born with this anomaly die before they have relatively much opportunity to develop tuberculosis, many of them being so incapacitated that they are protected from infectious contacts. If predisposition does actually exist, it must arise primarily in the faulty oxygen and blood exchange characteristic of these cases.

This study concerns the frequency of congenital heart conditions in a tuberculosis institution, the course of the pulmonary disease, and the efficacy and advisability of collapse therapy in the face of the cardiac handicap.

In the course of 1,545 necropsy examinations of tuberculous individuals, seven cases of congenital heart disease were discovered, an incidence of 0.4 per cent. This incidence may be higher than in most other tuberculosis institutions due to the fact that one out of eight beds in this hospital is allotted to pediatrics. It is lower than that observed in institutions devoted entirely to the treatment of children.

The diagnosis made from the symptoms and physical examination of six additional patients coincided unusually well with the defects found in the seven cases that came to autopsy. They exemplify the grouping of cardiac anomalies known as the tetralogy of Fallot. A picture of this condition is represented by this composite case report: The patient is a white youth in his lower teens. The history records cyanosis from birth or shortly thereafter, and the diagnosis of congenital heart disease was made early. At that time the child was placed on restricted activity and followed in a hospital outpatient department. He has had no evidence of congestive failure and has led a fairly normal life until the onset of the pulmonary disease. Examinations show a young-appearing, underdeveloped child not, as a rule, dyspneic, but with cyanosis and clubbing of the fingers and toes. The heart is enlarged in all dimensions, with a loud, harsh, systolic murmur at the base, usually associated with a systolic thrill. The lung findings are dependent upon the pulmonary pathology. Laboratory tests indicate a well-marked polycythemia and there are tubercle bacilli demonstrable in the sputum. Roentgenography and fluoroscopic examination demonstrate enlargement of both ventricles, frequently more marked in the right, and a prominent pulmonary conus. The venous pressure is within normal limits and the blood pressure tends to be normal or slightly decreased. In the electrocardiogram are found right axis deviation and tall P waves, these often being notched. The pulmonary disease has not influenced the findings typical of the combined heart lesions making up the cyanotic group.

The onset of pulmonary disease in these cases was similar to that of patients without congenital heart disease. Some or all of the usual symptoms of tuberculosis were present in all cases. No difficulty was experienced in differentiating between the congenital heart disease and pulmonary tuberculosis, since the congenital anomaly was diagnosed in all cases prior to the onset of the tuberculosis. The disease was moderately or far advanced on admission to the hospital in all but one case. The course of the disease and the lesions at autopsy were similar to those observed in patients without the cardiac hazard. The duration of life depended upon the extent of the disease on admission and the effectiveness of collapse therapy when that was used. The longest duration in the series of 13 cases was six years, the shortest courses were seven months. The average duration of life from the onset of the pulmonary infection to fatal termination was one to two years.

As the lesions and other factors of the pulmonary infection are the same whether or not the patient has congenital heart disease and as the cause of death depends upon the pulmonary rather than the cardiac status, it is the lung rather than the heart which should be the focal point of therapy. When bed rest fails to arrest the progression of the tuberculous infection or cannot accomplish cavity closure it must be supplemented by collapse therapy in spite of the cardiac pathology. When this procedure is adopted late in the course of the disease the possibility of arresting the tuberculosis is slight. The life expectancy of these patients even without the pulmonary complication is short. Nevertheless, therapeutic measures, even hazardous ones, seem justifiable if they will prevent the patient from succumbing even more prematurely to tuberculosis.

In the group of cases here reported pneumothorax was instituted in five cases. In one case only was an effective pneumothorax established. In no case did collapse therapy increase the cardiac symptoms or lead to congestive heart failure.

It is recommended that congenital heart disease should not be considered a contraindication to thoracoplasty and in order not to deprive these patients of the few years of life expectancy due them, immediate operation may be more advantageous than a preliminary, often disappointing, trial of pneumothorax.—*The Development of Pulmonary Tuberculosis in Congenital Heart Disease, Oscar Auerbach, M.D., and Marguerite G. Stemmermann, M.D., Am. J. M. Sci., Feb., 1944. Tuberculosis Abstracts, August, 1944*

WOMEN FURTHER MEDICAL SERVICE

A campaign to obtain a 100 per cent enrollment of Nassau County physicians in the United Medical Service, Inc., is now under way among members of the Woman's Auxiliary of the Nassau County Medical Society. Following an address by Dr. Frederick Elliott, Medical Director of United Medical Service, at a meeting of the auxiliary, the members voted to acquaint local physicians and their wives with the aims of the service by making personal visits to their homes, talking to those too busy to attend county meetings, and distributing literature. The campaign is being conducted under the leadership of Mrs. Grace V. N. Van Kleeck, president of the auxiliary.

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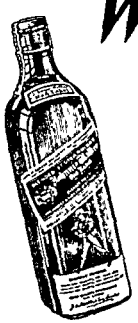
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County News

Nassau County. Lighted candles adorned the window ledges of the Nassau Hospital auditorium for the annual Christmas party of the Woman's Auxiliary of the Nassau County Medical Society in Mineola. Mrs. Louis A. Van Kleeck, of Manhasset, presided; and Mrs. E. Freeman Miller, of Freeport, chairman of program, introduced the entertainers.

Miss Leona Davis, of Freeport, played the vibraharp, accompanied at the piano by Miss Elma Ventress. Their selections were "Silent Night," "Liebestraum," and "White Christmas." Mrs. Gordon Asmundsen, of Hempstead, led in the community singing of Christmas carols.

Mrs. Miller then introduced the "Wo Aux Players," who appeared in an original Christmas play, in pantomime, with Mrs. Arthur C. Martin, of Old Westbury, as the commentator. Taking part were Mrs. August Fincke, Garden City; Mrs. Spencer B. Caldwell, Baldwin; Mrs. Clymer A. Long and Mrs. Eugene J. Miele, Freeport; and Mrs. Percival A. Williams, of Garden City. Mrs. Williams directed a spelling quiz.

Mrs. John L. Neubert, of Roslyn Estates, and her hospitality committee served the refreshments.

Instead of the exchange of gifts which featured such events in the past, members brought packages containing gifts for children, which will be delivered to boys and girls in foster homes in the county.

The executive board met on January 11. The next auxiliary meeting will be on January 23.

HEALTH DEPARTMENT RELEASES DATA ON CITY'S CRIPPLED CHILDREN

There are now well over 17,500 known cases of crippled and otherwise orthopaedically handicapped children in New York City. This fact was revealed in a survey of orthopaedically handicapped children released on December 26 by the Division for Physically Handicapped Children, a unit of the New York City Health Department's Bureau of Child Hygiene. Based upon Health Department figures as of June 30, 1944, the report shows that prenatal influences and injuries associated with birth, poliomyelitis, cerebral palsy, and clubfoot, in that order, rank highest among the causes of disability. These figures are being sent to approximately one hundred organizations and individuals particularly interested in crippled children in the city.

According to Health Commissioner Ernest L. Stebbins, a total of 17,578 orthopaedically handicapped children under 21 years of age were registered with the Division for Physically Handicapped Children as of June 30 of this year. The actual total, he stated, is probably somewhat higher since not all cases of handicapped and disabled children are reported to the Health Department.

The largest number of cases listed in the table—6,246—were caused by "prenatal influences and injuries associated with birth." Poliomyelitis, the second largest cause, accounted for the crippling of 3,914 children registered with the Division. "It is interesting to note," commented Dr. Stebbins, "that in June of 1939 we had 4,856 children on our register who had been crippled by poliomyelitis. This seeming decrease in 'polio' cases is probably due to the fact that many of the children who acquired their handicaps in the epidemic of 1935 are now over 21 and therefore are no longer listed on our register." Dr. Stebbins then warned that next year's register would probably show an increase in the number of poliomyelitis cases as a result of the outbreak which occurred in the summer and fall of 1944.

In addition to prenatal influences and injuries and poliomyelitis, the other major causes of disability listed include cerebral palsy (1,819 cases), congenital clubfoot (1,483 cases), and scoliosis—commonly known as "curvature of the spine" (1,474 cases).

The Division for Physically Handicapped Children, which prepared the tabulation, maintains a central registry of crippled children under 21 years of age in New York City and serves as an agency for coordinating and developing services for the prevention and treatment of physical handicaps in children.

"Orthopaedic cases, of course, represent but one of the many problems we must face in caring for our handicapped children," Dr. Stebbins stated. "Other comparatively common problems such as chronic heart conditions, faulty hearing, and defective vision are also being given careful consideration by the Health Department."

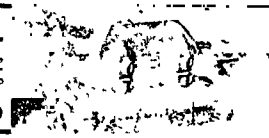
HOSPITAL SERVICE GIVES RADIO PROGRAMS

The series of radio programs sponsored jointly by the Greater New York Hospital Association, the United Hospital Fund, and the Associated Hospital Service of New York at 8:15 P.M. each Wednesday over WNYC will feature the following speakers for January, 1945: January 3—Bernard McDermott, superintendent, Long Island College Hospital; January 10—Dr. E. M. Bluestone, superintendent, and Dr. H. Houston Merritt, chief of the Division of Neuropsychiatry, Montefiore Hospital; January 17—John F. McCormack, superintendent, Presbyterian Hospital; January 24—Dr. Ernest L. Stebbins, Commissioner, Department of Health, New York City; January 31—Dr. Haim Yassky, executive director, Hadassah Medical Organization of Palestine.

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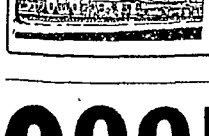
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Books

Books for review should be sent to the Book Review Department at 1313 Bedford Avenue, Brooklyn, N. Y. Acknowledgment of receipt will be made in these columns and deemed sufficient notification. Selection for review will be based on merit and interest to our readers.

RECEIVED

The Medical Clinics of North America. Boston Number. September, 1944. Octavo, illustrated. Philadelphia, W. B. Saunders Co., 1944. Published Bimonthly (six numbers a year). Cloth, $16 net; paper, $12 net.

History of Gynecology. By Richard A. Leonardo, M.D. Octavo of 434 pages, illustrated. New York, Froben Press, 1944. Cloth, $3.00.

Chronology of the Evolution of Plastic Surgery. By Maxwell Maltz, M.D. Octavo of 52 pages, illustrated. New York, Froben Press, 1944.

Neurology of the Eye, Ear, Nose, and Throat. By E. A. Spiegel, M.D., and I. Sommer, M.D. Octavo of 667 pages, illustrated. New York, Grune & Stratton, 1944. Cloth, $7.50.

Foster Home Care For Mental Patients. By Hester B. Crutcher. Octavo of 199 pages. New York, The Commonwealth Fund, 1944. Cloth, $2.00.

Principles and Practice of Surgery. By W. Wayne Babcock, M.D. With the collaboration of 37 members of the faculty of Temple University. Quarto of 1,331 pages, illustrated. Philadelphia, Lea & Febiger, 1944. Cloth, $12.

Man Does Not Stand Alone. By A. Cressy Morrison. Duodecimo of 107 pages. New York, Fleming H. Revell Co., 1944. Cloth, $1.25.

Health and Medical Care—Seneca County, N. Y. [1944], Washington County, N. Y. [January, 1944], Ontario County, N. Y. [May, 1944]. Studies made by the New York State Health Preparedness Commission in cooperation with the County Health Preparedness Committees. Quartos of 42, 41, and 48 pages respectively, illustrated. New York, N. Y. State Health Preparedness Commission.

Proteins and Amino Acids. Physiology, Pathology, Therapeutics. Prepared under the supervision of the scientific staff of the Arlington Chemical Company. Octavo of 173 pages, illustrated. Yonkers, the Arlington Chemical Co., 1944.

The Sick African. A Clinical Study. By M. Gelfand, M.B. Octavo of 373 pages, illustrated. Cape Town, S.A., Stewart Printing Co., 1944. Cloth, 25/-.

Ventures in Science of a Country Surgeon. By Arthur E. Hertzler, M.D. Octavo of 304 pages, illustrated. Halstead, Kansas, the author, 1944.

The South African Frog (*Xenopus Laevis*) in Pregnancy Diagnosis. A Research Bulletin. By Abner I. Weisman, M.D., and Christopher W. Coates. Octavo of 134 pages, illustrated. New York, New York Biologic Research Foundation, 1944.

A Bibliography of Aviation Medicine. Supplement. By Phebe Margaret Hoff, Ebbe Curtis Hoff, and John Farquhar Fulton, M.D. Quarto of 109 pages. Springfield, Ill., Charles C Thomas, 1944. Cloth, $2.50. (Yale Medical Library.)

Synopsis of Clinical Laboratory Methods. By W. E. Bray, M.D. Third edition. Duodecimo of 528 pages, illustrated. St. Louis, C. V. Mosby Co., 1944. Cloth, $5.00.

Handbook of Diagnosis and Treatment of Venereal Diseases. By A. E. W. McLachlan, M.B. Duodecimo of 364 pages, illustrated. Baltimore, Williams & Wilkins Co., 1944. Cloth, $5.00.

Savill's System of Clinical Medicine. Dealing with the Diagnosis, Prognosis, and Treatment of Disease. For Students and Practitioners. Edited by E. C. Warner, M.D. Twelfth edition. Octavo of 1,168 pages, illustrated. Baltimore, Williams & Wilkins Co., 1944. Cloth, $9.00.

Foundations of Neuropsychiatry. By Stanley Cobb, M.D. Third revised and enlarged edition of the work formerly known as *A Preface to Nervous Disease*. Octavo of 252 pages, illustrated. Baltimore, Williams & Wilkins Co., 1944. Cloth, $2.50.

REVIEWED

Guiding the Normal Child. By Agatha H. Bowley, Ph.D. Octavo of 174 pages. New York, Philosophical Library, Inc., 1943. Cloth, $3.00.

This book traces the normal growth and development of children from babyhood through adolescence. The author feels that the physical and intellectual factors concerned in child growth have been thoroughly worked out but that the emotional factor involving the growth of character and personality has been relatively neglected because it is more difficult to evaluate the latter in terms of standards. This has been remedied through the development of child guidance clinics.

The book may be read by physicians interested in understanding the psychologic problems associated with the growth of the normal child.

S. S. Lamm

Metastases (Medical and Surgical). By Malford W. Thewlis, M.D. Quarto of 230 pages, illustrated. Charlotte, N.C., Charlotte Medical Press, 1944. Cloth, $5.00.

This volume is an outline of metastases encountered in neoplastic and inflammatory diseases. In alphabetic and tabular form, according to disease, consideration is given to the site of origin of the primary process and the locations of secondary lesions. It does not give the relative frequency with which these metastases are encountered. This book would have been of greater value had the writer indicated which sites of metastases were most common, less common, and rare according to the various primary foci.

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REORGANIZATION OF MEDICAL TRAINING IN GREAT BRITAIN

Word has been received from the British Information Services that the Interdepartmental Committee on Medical Schools has made the following recommendations that every medical school should be an integral part of some university, and grants from public funds for its educational work should be received through the university, that there should be more full-time appointments and salaries for clinical teachers, with an academic head for each clinical division, that postgraduate study should be encouraged as a feature of regular practice by refresher courses for general practitioners, along with regular association with hospitals and

to house special research units It is recommended that central health service councils be established with university representation on them that non-teaching hospitals have access to teaching centers, and that special centers, maintain refresher courses for general practitioners —*J A M A*, *Aug 19, 1944*

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OFFICIAL NAVAL MEDICAL HISTORY OF WAR

Capt Louis H Roddis, (MC), USN, twice editor of the *Naval Medical Bulletin*, reported for duty at the Bureau of Medicine and Surgery October 30 and has been made responsible for the preparation of the official naval medical history of the war He recently completed thirty one years of naval service —*J A M A*, *Nov 25, 1944*

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RADIOLOGISTS TO MEET IN FEBRUARY

The annual meeting of the American College of Radiology, scheduled to be held in Chicago in February, has been postponed because adequate hotel accommodations could not be obtained. Instead, there will be a Conference of Teachers of Clinical Radiology and a panel discussion, arranged by the Commission on Hospital Standards.

The Board of Chancellors will meet on Thursday, February 8, and Friday morning. Friday afternoon, February 9, the Commission on Education will conduct a Conference of Teachers of Clinical Radiology.

On Saturday morning, February 10, the Commission on Hospital Standards will present a panel discussion on "Radiology in Prepayment Plans." Spokesmen for radiology, Blue Cross, hospitals, and other interested groups will participate. Miscellaneous conferences will be held Saturday afternoon and in the evening there will be an informal dinner.

The meetings will be held at the Drake Hotel, Chicago, February 8–9–10.

MORRISON PRIZES AWARDED

The two annual A. Cressy Morrison Prizes of $200 each were presented December 14 to Eleanor G. Alexander-Jackson, Ph.D., member, research department of public health and preventive medicine, Cornell University Medical College, and Alexander Sandow, Ph.D., assistant professor of biology, Washington Square College, New York University, during the one hundred and twenty-seventh annual meeting of the New York Academy of Science at the American Museum of Natural History.

The New York *Times* reported that this is the first time in the history of the prizes that one of them went to a woman scientist. Dr. Alexander-Jackson was chosen for her work in discovering a "hitherto unobserved form of the germ causing tuberculosis," revealing the existence of what is known as the "zoogleal" form of tubercle bacillus. Dr. Sandow was selected for his paper reporting studies giving new light on the mechanism of muscular contraction. The Morrison Prizes are awarded "for the two most acceptable papers in any field of science, within the scope of the Academy and its affiliated societies."

Walter H. Bucher, Ph.D., was elected president of the Academy of Science. Dr. Florence R. Sabin, member emeritus of the Rockefeller Institute for Medical Research, was elected an honorary life member, the first woman scientist to be thus honored by the Academy.—*J.A.M.A., Dec. 30, 1944*

DR. WADE HEADS POLIO FUND DRIVE FOR NEW YORK TEACHERS

The chairmanship of the New York school teachers' division of the 1945 fund-raising appeal of the National Foundation for Infantile Paralysis has been accepted by Dr. John E. Wade, Superintendent of Schools, it was announced on January 1 by Basil O'Connor, president of the Foundation.

"A bill of rights for children," said Dr. Wade, "must include the right of those who are handicapped physically to receive the necessary care and treatment so that they may live a life as nearly normal as possible. The work that the Foundation does in fighting one of the most devastating diseases of childhood is close to the heart of every educator and will be supported by the teachers."

The March of Dimes campaign will begin on January 14. Benefit balls honoring President Roosevelt's birthday will be celebrated on January 30.

ADDITION OF NEW MEXICO TO ROCKY MOUNTAIN MEDICAL JOURNAL

Arrangements have recently been completed, by which the *Rocky Mountain Medical Journal* will be the official journal of the New Mexico State Medical Society.

Dr. Carl Gellenthien, of Valmora, New Mexico, will be the editor for the State of New Mexico.



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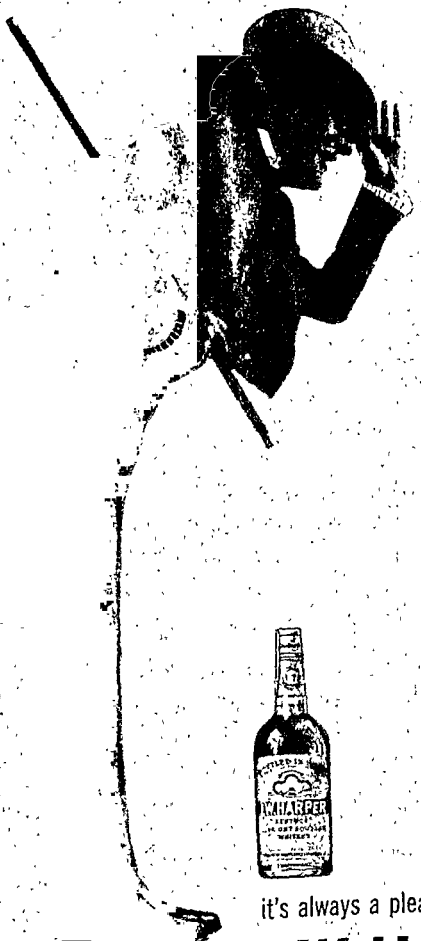
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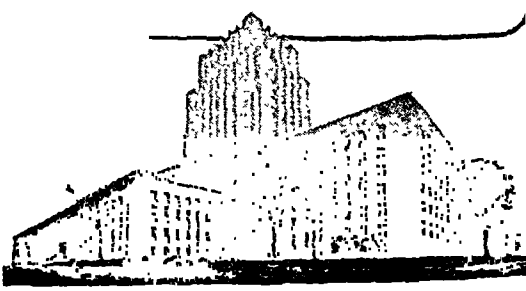
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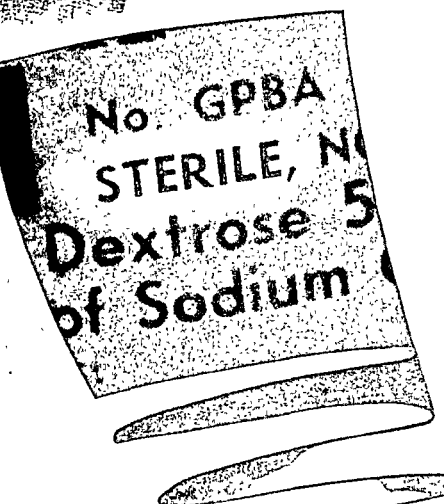
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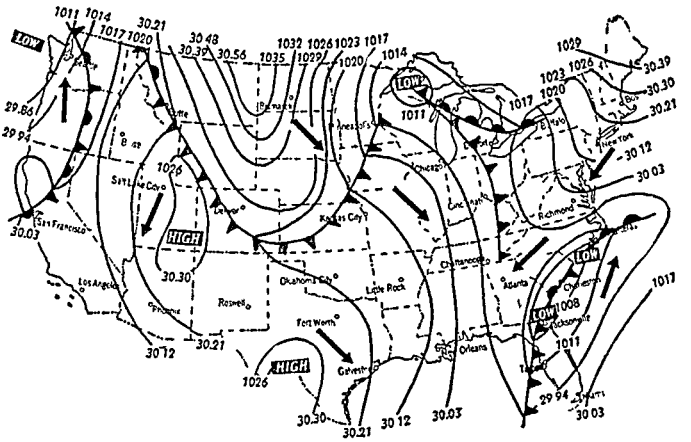
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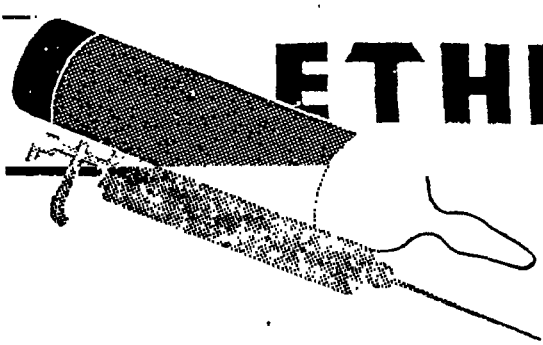
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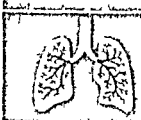
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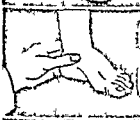
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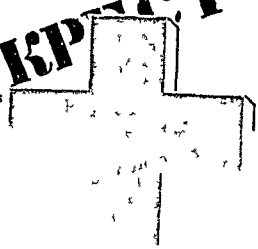
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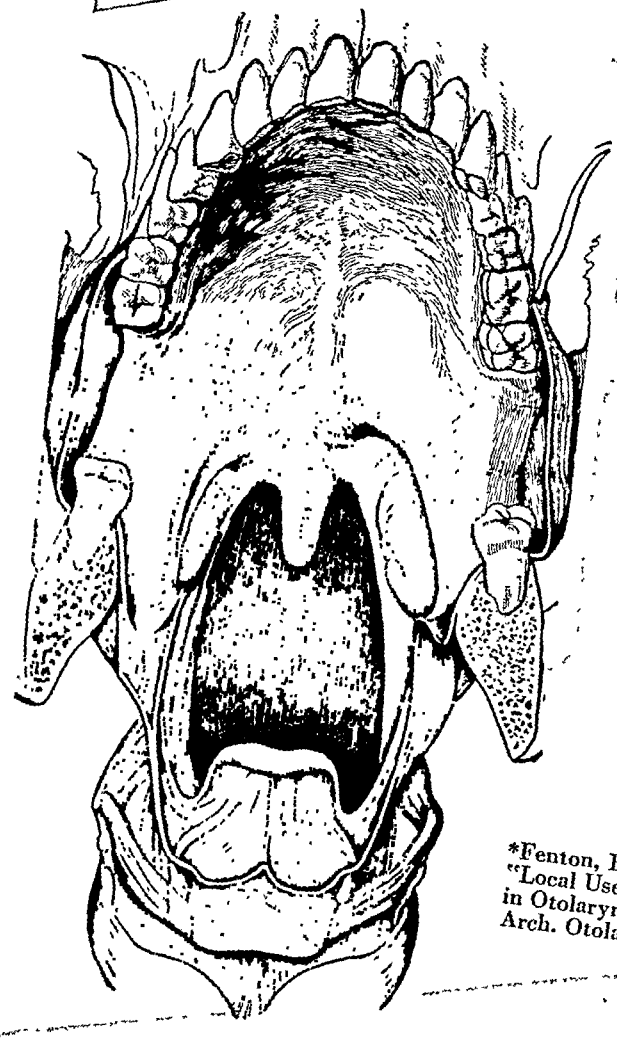
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*Fenton, Ralph A.:
"Local Use of Sulfathiazole
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Arch. Otolaryng., 37:491, 1943.

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Chewing even a single tablet provides a high, *sustained* salivary concentration of *locally active* sulfathiazole, averaging 70 mg. per cent over a full hour's chewing. Yet *blood levels* produced by even maximal dosage—and even in children—are for the most part too low to be quantitatively measurable. More effective *local* chemotherapy is thus made possible, while *systemic* toxic reactions are virtually obviated.

INDICATIONS: Septic sore throat, acute and chronic tonsillitis, pharyngitis, infectious gingivitis and stomatitis, non-epidemic infectious parotitis, peritonsillitis—caused by sulfonamide-susceptible micro-organisms. Preliminary studies indicate that Vincent's disease heals within 48-72 hours following start of treatment.

DOSAGE: One or two tablets of White's Sulfathiazole Gum chewed *for one-half to one hour* at intervals of one to four hours, depending on severity of condition. Should patients (children, for instance) find difficulty in chewing a single tablet for one-half to one hour, as many tablets as desired may be successively chewed during the period.



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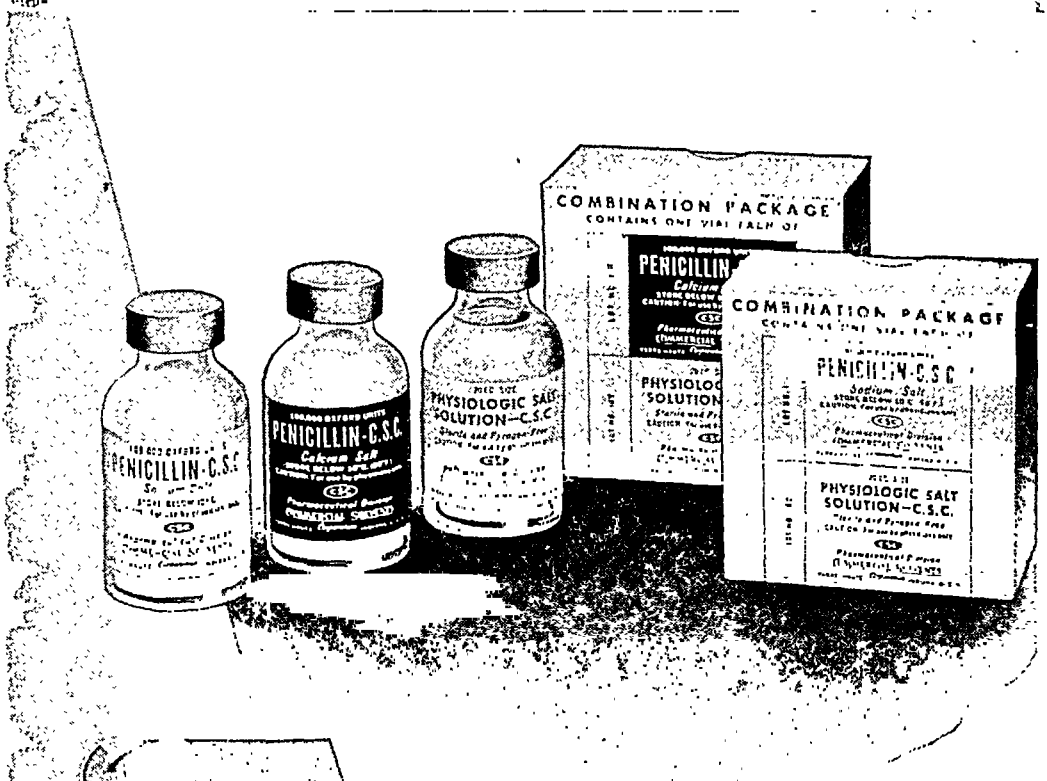
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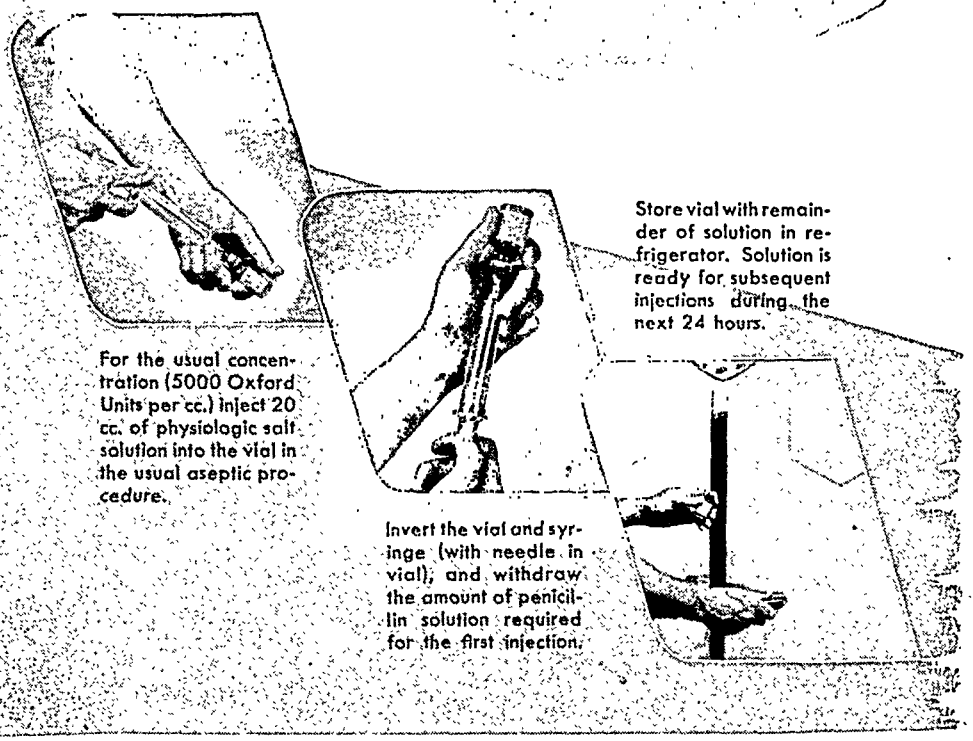
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For the usual concentration (5000 Oxford Units per cc.) inject 20 cc. of physiologic salt solution into the vial in the usual aseptic procedure.

Invert the vial and syringe (with needle in vial), and withdraw the amount of penicillin solution required for the first injection.

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For administration in the physician's office or in the patient's home, Penicillin-C.S.C. will be available in a convenient combination package, as soon as the drug is released for unrestricted use in civilian practice. This combination package provides two rubber-stoppered, serum-type vials. One vial contains enough physiologic salt solution to permit the withdrawal of 20 cubic centimeters The other vial contains 100,000 Oxford Units of penicillin sodium or penicillin calcium* respectively.

The physiologic salt solution is sterile and free from fever-producing pyrogens. Penicillin-C.S C — whether the sodium salt or the calcium salt—is bacteriologically and biologically assayed to be of stated potency, sterile, and free from all toxic substances, including pyrogens, as attested by the control number on the package.

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After the desired amount of the solution for the first injection has been withdrawn, the vial containing the remainder of the solution should be stored in the refrigerator. It is ready for the next injection—the desired amount then merely has to be withdrawn under proper sterile technic.

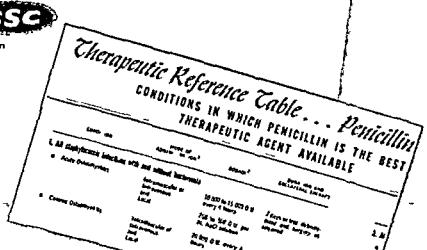
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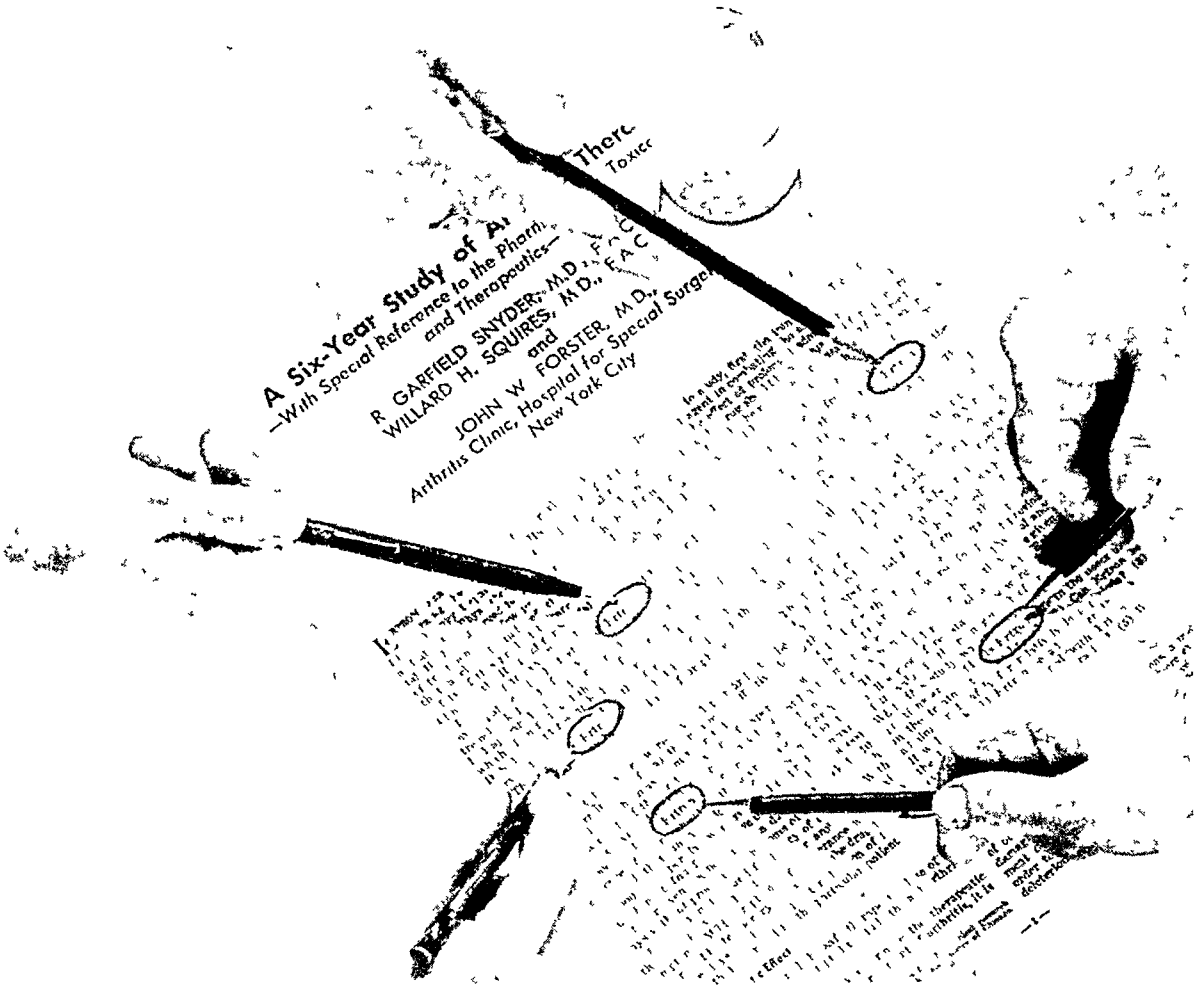
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Therapeutic Reference Table . . . Penicillin
CONDITIONS IN WHICH PENICILLIN IS THE BEST THERAPEUTIC AGENT AVAILABLE

A page of the "Penicillin-C.S C. Therapeutic Reference Table,' showing recommended dosages and modes of administration, a copy is yours for the asking

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6 Farley, R T · The Treatment of Arthritis with

12 Snyder, R G and Squires W H · Follow-Up Study of Arthritic Patients Treated with Activated Vaporized Sterol, N. Y. State J. Med., 41 2332 (Dec.) 1941.

17. Levinthal, D H and Logan, C E · The Orthopedic and Medical Management of Arthritis, Journal-Lancet, 63 48 (Feb.) 1943

19. Snyder, R. G Squires, W H, Forster, J W, Rudd, E , The Therapeutic Value of Electrically



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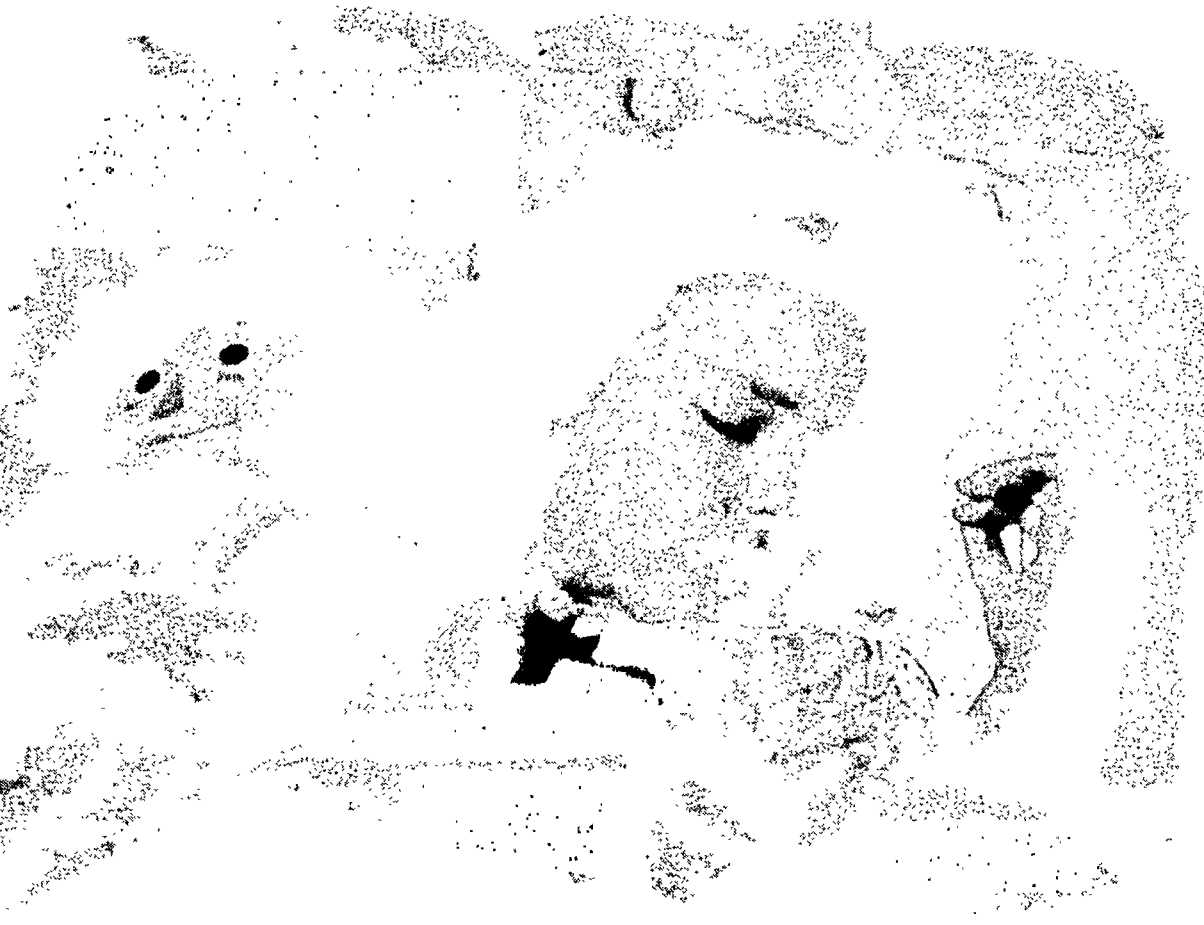
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The *Complete* Malted Milk—Not Just a Flavoring for Milk

HORLICK'S

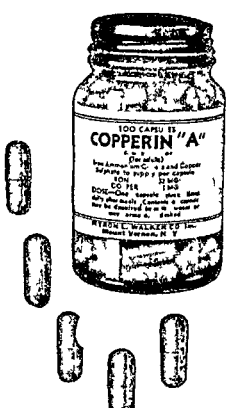
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IN

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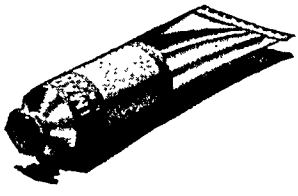
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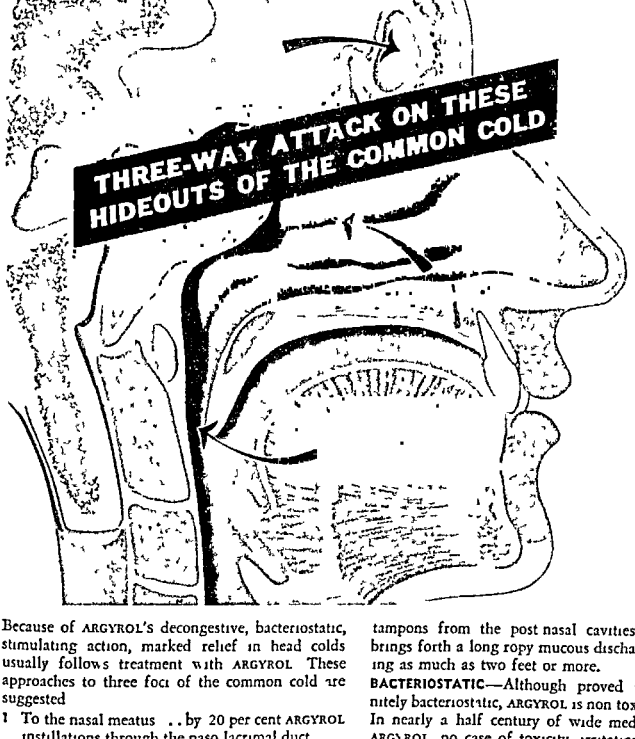
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THE PHYSIOLOGIC ANTISEPTIC WITH SYNERGETIC ACTION . . .

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AN *Excellent* SEDATIVE *and* HYPNOTIC



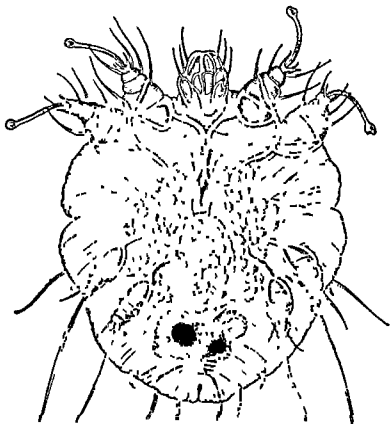
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'WELLCOME' **BENZYL BENZOATE** EMULSION 50%

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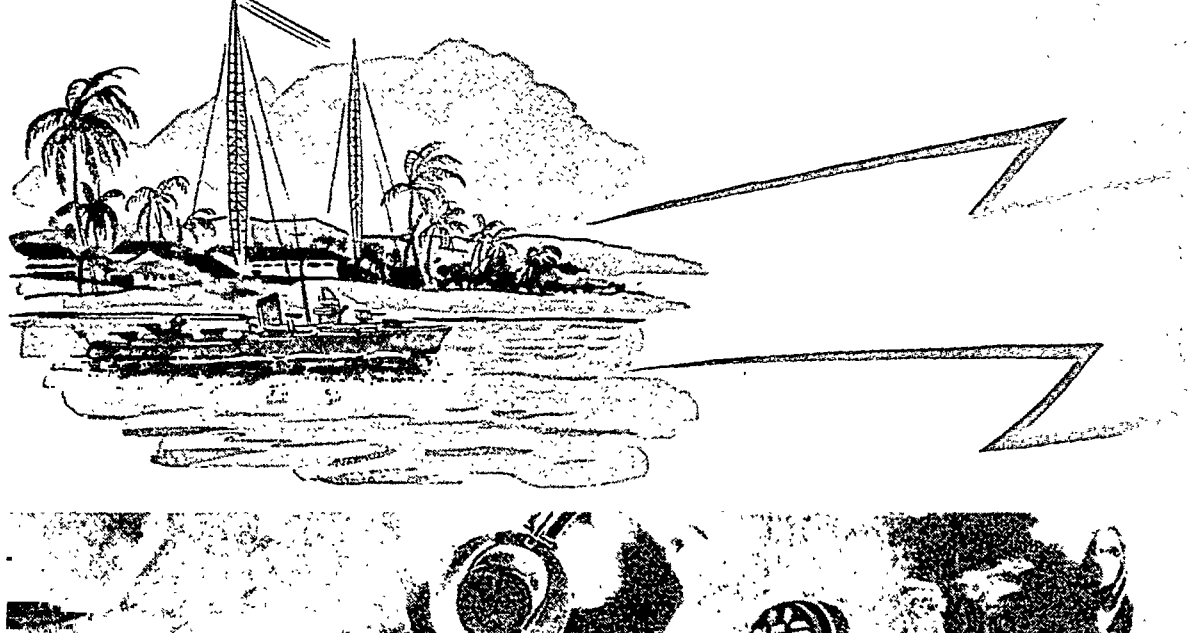
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1 Mackenzie, I F Brit. M. J. 2 403, 1941

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1:100 Solution
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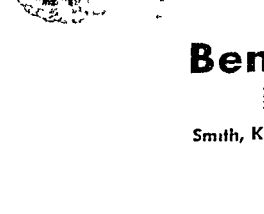
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The Inhaler's vasoconstrictive vapor diffuses evenly throughout the upper respiratory tract, opening sinal ostia and ducts which are frequently inaccessible to liquid vasoconstrictors. The sinuses drain. Headache, pressure pain, "stuffiness" and other unpleasant sinusitis symptoms are relieved.



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Benzedrine Inhaler

Each tube is packed with racemic amphetamine S.K.F 200 mg oil of lavender 60 mg, menthol 10 mg

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Zymenol Contains Pure Aqueous Brewers Yeast (no live cells)

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recent extensive investigation confirms contraceptive effectiveness of the active ingredient in Koromex Jelly

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1 Clinical evidence showed that in actual use, phenylmercuric acetate jelly had a remarkable record for contraceptive efficiency.

2 The earlier work of Baker, Ranson and Tynen (Lancet, 2:882, (October 15), 1938), showing a very high spermicidal potency, was confirmed.

3 Toxicity was found low.

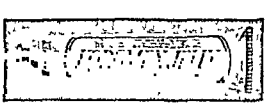
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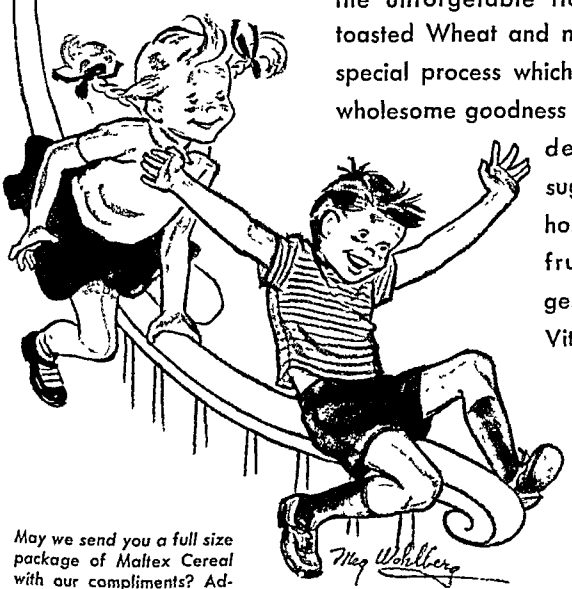
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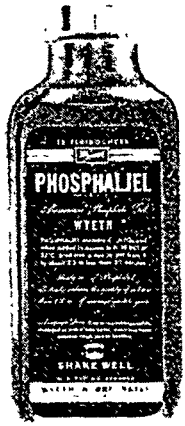
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1. Fe[illegible] sky, H. S.: Aluminum [illegible]-578 (Mar.) 1941.
2. [illegible] e Drip Method in the [illegible] 1942.
3. [illegible] › Therapy for Peptic [illegible] Nov. 7) 1942.
4. Upham, R., and Chalkin, N. W.: A Clinical Investigation of Aluminum Phosphate Gel, Rev. of Gastroenterol., 10:287-297 (Nov.-Dec.) 1943.
5. Lichstein, J., Simkins, S. and Bernstein, M.: Aluminum Phosphate Gel in the Treatment of Peptic Ulcer. Am. J. Digest. Dis. In Press.



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Editorial

Nurses for the Armed Forces, II

More nurses are needed for the armed forces. On that point there seems to be general agreement.

How many are needed? In the January, 1945 issue of the *New York State Nurse*[1] we find these statements: "On my return from England and France, I found that the Army had made a nation-wide plea for 10,000 *more* nurses at once . . . ." in a letter signed Frances Payne Bolton, Committee on Foreign Affairs of the House of Representatives; also "The Army Nurse Corps must have 10,000 nurses in the shortest possible time," reprinted from an editorial in the *American Journal of Nursing* for November, 1944. In the New York *Times* report[2] of a special meeting at Hotel Pierre, New York, Maj. Gen. Norman T. Kirk, Surgeon General of the Army, is quoted as calling for 10,000 *additional* nurses. Rear Admiral Reed, at the same meeting, is quoted as having said "by June 30 we will need 4,000 *more* nurses" for the Navy.

How many nurses are *now* available? As of October, 1944, Major General Kirk is authority for the statement:[2] "We sent a personal appeal to each one of the 27,000 nurses that the War Manpower Commission told us were available for duty. . . . We received 760 answers and signed up 227 nurses from that group."

On the radio, January 6, 1945, and in his message to the Congress President Roosevelt called for the drafting of nurses for the armed forces, stating:

"Last April the Army requirement for nurses was set at 50,000. Actual strength was then 40,000. Since that time the Army has tried to raise the additional 10,000. Active recruiting has been carried on, but the net gain in eight months has been only 2,000. There are now 42,000 nurses in the Army.*

"Two hundred eighty thousand nurses are now practicing in this country. It has been estimated by the War Manpower Commission that 27,000 *additional* nurses could be made available to the armed forces without interfering too seriously with the needs of the civilian population for nurses."

What, then, may the need be by March or June?

Now it is our impression that the Surgeons General have been somewhat less than frank with respect to the needs of the armed forces and the failure of the recruiting program and the requirements of other government services for nurses. Reasons of security have possibly governed the release of figures on expected casualty lists. Yet it would be absurd to infer that within reasonable limits the expectancy of casualties and therefore the need for nurses has not been calculated in advance. That is elementary staff work. It should be possible for the Surgeons General to state approximately the need for nurses for each year of the war.

How otherwise are preparations to be made to meet the requirements? It seems absurd, as reported in the *Herald Tribune* under the dateline Washington, D.C., December 27, that "Eleven Army hospital units are being sent overseas without any nurses," this being the statement of Basil O'Connor, chairman of the American Red Cross.

No one states whether these units were to pick up their nursing complements overseas or not, but it is *implied* that there were not enough nurses to fill the requisitions and it *is* stated that "this is an unprecedented event in this war."

We are not attempting to minimize the seriousness of the nursing shortage, merely to clarify it. Any doctor or civilian hospital director knows from personal experience how curtailed the civilian situation is. But, on December 12, 1944, in the New York *Herald Tribune*, Dorothy Dunbar Bromley, quoting Miss Dorothy Wheeler, director of the New York City Nursing Council for War Service, accuses the doctors by inference and direct statement for their failure to ration nurses. In general, it is the patients who hire the nurses, frequently without bothering to consult the physician. In the hospital, floor-duty nurses are assigned by the administration, and private-duty nurses are obtained through the hospital registry or by the nursing office through a nurses' registry.

What is the present status of Army and Navy casualties?

Are they in fact, or are they not receiving good care? Until now we have been led to believe that the care has been excellent, and this from official sources. How can it be good and poor at the same time?

What is the present status of nursing services in the civilian hospitals? How does it compare as to age of nurses, number, and *quality*, with 1940 or 1941? Has the American Hospital Association or any other authoritative body made such a survey? It is useless to single out specific hospitals for censure, as was done by Major General Kirk[2] in the case of "one civilian hospital in New York City (which) has 743 patients and 826 nurses on its staff." We want to know and are entitled to be informed of what the over-all picture is in *all* the hospitals of the country. Fourteen years ago, 55 per cent of our nursing profession were conducting individual private practice according to the Committee on the Costs of Medical Care. The National Nursing Council for War Service says that in 1944, the 60,499 private-duty nurses are only 16 per cent of the 385,182 total of all nurses. This will drop to 55,000 two years hence in the opinion of the Council. Thus, if estimates are correct, only one graduate nurse in eight will be in private practice.

What is wrong with the recruiting service for nurses which admits of 27,000 nurses available and has not been able to recruit but a "pitifully inadequate" number, again in the words of Maj. Gen. Norman T. Kirk?[2] It is unthinkable that there is that number of unpatriotic nurses, but it is quite thinkable that red tape and confusion in recruiting methods could account for at least some of the poor response. This is so stated in Miss Bromley's article in the *Herald Tribune* for December 31, 1944. It is hard to see how the nursing and medical professions could be blamed for this!

We are informed that there are about 105,000 Cadet Nurses in training, that 1,200 already have been graduated, and that 25,000 more will be graduated in 1945. What has happened to the 1,200 graduates of 1944, and what will happen to the 25,000 graduates of 1945? The contract[3] which each such Cadet Nurse signs with the Federal Security Agency states "In consideration of the training, payments, and other benefits which will be provided me

if I am accepted as a member of the U.S. Cadet Nurse Corps, I agree that, if accepted, I will be available for *military*** or other Federal governmental or essential civilian services for the duration of the present war." Signatures of applicant and parent or legal guardian are required.

Yet the *Fact Sheet*[4] of the U.S. Cadet Nurse Corps, a bulletin of information for recruits, states, under the heading of "Answers to Questions Most Frequently Asked," "In return for advantages received through the Corps, *Cadet Nurses promise* that, health permitting, they will remain in essential nursing for the duration of the war. The choice of *which** essential service is theirs. They are *not required to pledge themselves* to military service." For this, we are informed, the government is disbursing $60,000,000 yearly. We wonder, and could blame no Cadet Nurse or her parent for being confused as to what her obligations for military service are. The *Fact Sheet* seems to be quite definite that she has none.

We can readily understand the confusion and consequent lack of results in the nurse procurement program.

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[1] Vol. 17, No. 1, pp. 10 and 11.
[2] New York *Times*, Sunday, January 7, 1945, p. 32.
[3] January 5, 1945.
[4] Form 52, Div. Nurse Education, U.S. Public Health Service, Federal Security Agency.
** Italics ours—*Editor.*
[4] Dated February 1, 1944.

Adequate Diet, II

For nearly a century the question of the optimum protein in the diet has been debated by scientists and laymen alike. Physicians have had their voice in the matter also, particularly on the possible effect of protein on the kidney. One does not have to go back in the literature more than two decades before finding recommendations for restricted protein diets for patients having protein loss in the urine. Fortunately, modern research has partially clarified many points in the former controversy and has rendered untenable the old ideas held by many that high intakes of protein are physiologically harmful.

Attention is now focused on the question of the minimum nutritional need for protein, for now such physiologic and pathologic problems[1] as growth, immunity, blood formation, wound healing, pregnancy, lactation, bone formation, edema, and liver diseases are known to be related to the amount and quality of protein in the diet. The specific need of protein nutrition is for the amino acids of which proteins are made, and different proteins—and thus different foods—vary in their content of the acids which are essential. While it was formerly thought that protein in itself was required to control many of these physiologic and pathologic effects, considerable evidence has accumulated[2] that other constituents of protein foods, namely, minerals and vitamins, may account at least in part for many of them. Re-evaluation of protein's role has been stimulated by wartime needs for clarification, hence a considerable number of studies are being made at the present time. Knowledge of the dependency on protein in the diet for wound healing[3] and blood formation[4,5] is a contribution of considerable clinical importance at this time.

It should be kept in mind that protein foods and proteins are not synonymous. A high-protein diet means high-protein foods which have, in addition to protein, other important nutrients such as minerals, vitamins of the B complex, fatty acids, and fat-soluble vitamins. There is general agreement that the present recommended dietary allowances[6] for protein are fully adequate as applied to the usual mixed diets and are probably more generous than necessary with certain food combinations.

When a physician prescribes certain protein foods which are superior in amino acid makeup, he is confronted with the problem of whether it is economically possible for his patient to follow the prescription. As in the case of fat, protein of animal origin is expensive to produce in comparison to protein of vegetable origin. Certainly animal protein is the preferred source from the point of view of patient's choice, for we Americans are among the economically fortunate peoples of the world who have

liberal intakes of animal protein ingrained in our eating habits. On the other hand, Eastern peoples have subsisted fairly well for centuries on diets containing less than 10 per cent of their protein from animal sources. It is quite likely that the food experts of the United Kingdom,[7] when following the policy in the war emergency of recommending that the supply of animal protein should not fall below 40 Gm. per day, or approximately one half of the total needed protein intake, had in mind consumer morale as well as physiologic requirements.

Our own Food and Nutrition Board of the National Research Council[8] has put itself on record as follows: "There are not sufficient data for stating categorically the minimum amount of protein per day which must come from biologically superior foods. The *variety* of protein consumed should be stressed, and sufficient 'animal protein' should be included to prevent monotony of the diet to the degree where it might decrease consumption and thus effect nutritional status." The idea that hard work steps up the protein need has been largely dissipated, even though beefsteaks remain the preferred food of the athlete and the manual laborer. Stare and Thorn[1] recently found that the amount of protein in the ordinary diet of an active adult may be safely reduced to 50 Gm. per day, of which as little as 5 Gm. may be in the form of animal proteins. However, because their volunteers were studied for a limited time (only eight weeks) further studies over longer periods are needed.

As in the previous discussion on fats, an attempt has been made here to point out that there are various vegetable and animal sources of protein upon which the human diet can draw. The physiologic requirements of the body appear to be better fulfilled when both sources are used. Meat, the more palatable source of protein, contributes palatability to the meal as a whole, thus helping to insure consumption of other less palatable foods which have nutritional importance.

It is evident from this review that protein plays an important role in many physiologic and pathologic processes; that the body can tolerate wide limits of intake without injury; that the specific requirement cannot be stated as exactly as in the case of calories, because the kind and source of protein is important; but that in a varied diet which is satisfactory in other respects, a minimum of 10 per cent of the calories should be protein for an adult, and 12–15 per cent for a growing child.

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[1] Stare, F. J., and Thorn, G. W.: Am. J. Pub. Health 33: 12 (Dec.) 1943.
[2] Ninth Report of Committee on Nutrition, National Research Council, No. 117, 1943.
[3] Thompson, W. D., Ravdin, I. S., and Frank, I. L.: Arch. Surg. 36: 500 (1938).
[4] Orton, A. U., and Orton, J. M.: J. Nutrition 26: 21 (1943).
[5] Hahn, P. F., and Whipple, G. H.: J. Exper. Med. 69: 315 (1939).
[6] Recommended Dietary Allowances, National Research Council, Reprint and Circular Series No. 115, January, 1943.
[7] Report of a Special Joint Committee set up by the Combined Food Board, War Food Administration, Washington, 1943.
[8] Resolutions of Food and Nutrition Board, National Research Council, June 14, 1943.

TO PRACTITIONERS OF MEDICINE

The nursing need for the armed forces is extremely acute. Will *you* help by observing the following suggestions?

1. Employ no nurse of military age, except when absolutely necessary.
2. Urge your patient to employ no unnecessary service, and use practical nurses when possible.
3. Explain to your patient that the use of a special nurse may deprive a wounded relative or friend in the armed services of vital nursing care.

THE PLACE OF THE MASS SURVEY IN THE TUBERCULOSIS CONTROL PROGRAM

H R Edwards, M D , F A C P , New York City

THE examination of apparently healthy individuals with no known history of exposure to tuberculosis dates back many years Until 1933, such studies were directed almost exclusively at the school child Since 1933, there has been an increasing emphasis placed on the detection of tuberculosis in the adult population, with the result that a much higher percentage of significant disease has been found Efforts in this direction attained their highest peak when the armed forces adopted the chest x-ray as a required part of the examination for all men and women entering the service The true significance of this type of program is now being felt and will become increasingly more important as such services are made available to a greater number of persons

The total number of individuals who have had a chest x-ray in this country during the past ten years as a means of discovering latent or active tuberculous lesions is unknown, but if one may judge from the numbers who have been cleared by the induction centers throughout the nation, the examinations made in industry, in public and private clinics, to say nothing of the chest x-ray examinations made by the practicing physician and roentgenologist, then the total number must run well into the millions

The mass survey program has been developed extensively in New York City by the Department of Health since 1933,[1] and, through 1943, over half a million individuals have been examined We have found approximately 2 per cent with evidence of chronic pulmonary tuberculosis, of which one-third of the cases are considered to be significant A report[2] on the eight years' service in district clinics of the Department of Health, as well as surveys between 1933 and 1940, indicated chest x-ray examinations of approximately 797,759 individuals, all for the purpose of detecting tuberculosis

In addition to these examinations, we should consider the men of draft age who have been examined at the induction centers since 1940 [3-5] A report by Colonel McDermott in the New York *Times* of March 5, 1944, indicated that 700,000 men in New York City had entered the armed forces Presumably, therefore, well over a million men were examined in this screening process The initial x-ray was made by the Army, except the work done in 1940 by the Department of Health, and, from the beginning, the Department of Health, in cooperation with the United States Army and the local Selective Service, has made a prompt re-examination of approximately 94 per cent of all men rejected on the basis of lesions seen in chest roentgenograms This work represents a tremendous saving in original survey cost to the Department, and at the same time brings to our attention the significant lesions in need of follow-up

Two of the Tuberculosis and Health Associations in New York City have made considerable contribution to this work During the period of 1933 to 1943, the Queensboro Tuberculosis and Health Association examined by chest x-ray in their consultation and survey services approximately 110,860 individuals In earlier years, their services were devoted entirely to school children Efforts in the industrial field started in 1938, when 162 examinations were made, and the number markedly increased to a total of 12,264 in 1943 Over 60 per cent of their services have been rendered since 1939 The Brooklyn Tuberculosis and Health Association during the period from 1933 to 1943 examined 27,610 persons in surveys They also x-rayed 58,681 pupils under 15 years of age in public schools, not as a case-finding venture but as a health education project with the Department of Education

To these rather impressive totals should be added many more thousands of individuals who have had chest x-rays in the various chest clinics and other outpatient services connected with hospitals and by physicians in New York City Although the exact figures for all of these services are impossible to compute, it may be conservatively estimated that for the period 1933 to 1943 approximately 2,500,000 individuals in New York City had a chest x ray for the purpose of detecting previously undiscovered tuberculosis

Considering our surveys as a whole, approximately 2 per cent of those examined revealed lesions characteristic of chronic pulmonary tuberculosis, of which about one-third are classified as of some clinical significance—that is to say, they are either open infectious lesions or the x-ray shadows are of such a nature that a definite opinion cannot be reached without periodic supervision to determine the stability of the lesion Approximately half of these so-called significant lesions will eventually be classified as

Read by Dr Allen Hurst supervisor Chest Clinics New York State Department of Health at the Annual Meeting of the Medical Society of the State of New York New York City May 9 1944

Director Bureau of Tuberculosis New York City Department of Health.

arrested. Reports of other workers who have done mass surveys are quite similar to ours in the ratio of significant to arrested lesions. They vary from one to two significant cases for each one classified as arrested.

Our program here in New York City has been developed with a clear-cut policy from the beginning. The first objective has been to demonstrate the need and the relative significance in certain population groups as productive sources of case-finding. This is important on the basis of sound business administration, so that each dollar invested will yield the maximum results. To this end, we extended our surveys to a wide variety of age, racial, and economic classes of the population. Our findings have been published,[1] and may in general terms be summarized as follows.

Significant tuberculosis is most prevalent in the adult population, usually in persons 20 years old or older. From the standpoint of race, the colored population is of extreme importance, because it is among the nonwhite that we have the highest mortality rates. While the prevalence of tuberculosis among white and colored of all ages in mass surveys reveals higher rates for the white, the age factor between the two groups reveals a very significant difference. Dividing them at 25 years, we consistently find higher rates among the colored below that age than we do in the white population. Also, we find more significant lesions among the colored than among the white, with more evidence of healed lesions in the white than in the colored.

The second objective of our program has been to demonstrate an effective method of doing the job. In general, this may be divided into three stages: surveying, review and classification, and, finally, the permanent supervision of the case found.

In the survey phase of the program, we have used the rapid roll-paper method in all of our surveys, and in only a few involving school ages have we utilized the tuberculin test as a pre-screening method. The roll-paper method has proved very satisfactory to us, because primarily the diagnostic quality of the lesion is, in our opinion, superior to other available methods for mass work.

Second, it has been used on a service basis, which means that we could use a single unit or several units at the same time without the administrative difficulty of owning and staffing one or more units that are seldom used consistently day in and day out. It is our feeling that the net monetary saving in operating surveys in this manner has been greater than if we had made a capital investment in equipment and carried the staff necessary for its operation.

We believe that the tuberculin test should have a part in the mass survey program when pupils in schools are considered. Preselection by this test results in a definite saving in x-ray service. It does, however, add an extra step in the survey program, as the students must make at least two visits, one to receive the test, and a second for its reading, at which time those positive may be x-rayed. In our experience the school authorities object to the tuberculin test for the above reasons, and, unfortunately, many have a fear of severe reactions to the test, which of course has little basis in fact. We advocate the use of tuberculin in school populations primarily from the standpoint of economy, rather than as an epidemiologic index to the prevalence of infection, although it should be pointed out that such indices based on careful tuberculin testing surveys are of the greatest value in evaluating the tuberculosis program in a given community. This becomes quite obvious when one considers findings such as the following. In a recent patch-test survey in the borough of Queens, 10 per cent of approximately 30,000 school children proved to be reactors. A similar survey in the Central Harlem District, chiefly among a colored population of high-school age, revealed approximately 40 per cent reactors. Therefore the prevalence of infection is a good indication of where the most tuberculous disease may be found.

We believe the patch test to be very satisfactory for this type of screening operation. It has the advantage that it may be easily done by a nurse or a trained technician, whereas the intradermal test (Mantoux) seems to be more properly the responsibility of the physician. In our work, the physician reads all tuberculin tests and administers the Mantoux test when it is used. Since the purpose of the test is that of a rough screening device to conserve x-rays, there would seem to be no logical reason why either the patch or Mantoux test may not be administered and read by a trained technician.

Time will not permit a detailed discussion of the use of survey forms, clerical staff, and organizational details incident to the efficient conduct of the complete survey phase of the mass case-finding program, although it should be remembered that they do constitute a major part of the job.

Review and Classification

For purposes of rapid and complete analysis of the findings of mass surveys, all x-ray pictures have been read centrally, and for those patients needing further examinations, including physical, x-ray, fluoroscopy, sputum, etc., these have been completed at the same point. Our district organization of clinics is composed of twenty-two

such units; therefore it would obviously be difficult in large-scale mass surveys to compile our results based on the findings in a number of district units. There is also the problem of a lack of uniformity that would result if such work were done by a central staff. The central clinic of the Department is easily accessible by all transportation facilities in the city and has offered other time-saving devices in our work. The classification of cases by us on the basis of the survey examination, with a complete examination following, gives the Department the needed information about the significance of a given case. If the physician received only an interpretation of a survey film, we would never be quite sure that the significance of the x-ray shadow would be fully appreciated by him.

There are still too many physicians who evaluate tuberculosis on the basis of the common clinical symptoms and physical findings, and there are too many who base a diagnosis upon a positive sputum before considering a lesion as significant, if tuberculous at all.

More recently, we have developed the idea of localized mass surveys in connection with our district clinics. This has been possible through the installation of a new x-ray device,[6] using roll paper.

This unit can be used with the standard x-ray equipment in each clinic, and it is estimated that it can increase by 50 per cent the number of films which can be taken by the staffs in our local clinics. If this development is used to its maximum in all clinics, it is estimated that an additional 200,000 persons will be x-rayed each year. This goal will probably not be attained immediately, owing to the curtailment of staff on account of the war effort.

The operation of mass surveys, involving 200 or more examinations per day, is difficult as a day-by-day program, unless one is working in a controlled population group, such as a school, an induction station, an industry, or the like, where large numbers of persons are easily available. Miller and Henderson[7] have reported on a survey conducted under this plan which utilized the resources of the Department of Health and the Department of Welfare in New York City, and which effectively reached over 3,500 persons on Home Relief. Similar programs will be developed in this new plan in the various clinic districts, with the Department of Welfare and other agencies having access to or control of potentially significant population groups in so far as undiscovered tuberculosis is concerned. In these localized studies, the survey film is read and such follow-up as is indicated is done by the district clinic staff rather than at the central clinic, as in the case of large-scale mass surveys.

Permanent Supervision

There is no excuse for conducting mass surveys unless there are adequate facilities for the proper follow-up of cases found, and for the examination of the contacts. This has been an inflexible policy in our program from the beginning of our mass surveys in 1933. The subsequent supervision of cases found may be divided between those who go to their physicians and those who have no physician and usually cannot afford one and therefore go to a district clinic.

From the standpoint of the physician, the mass survey program has brought to his attention thousands of cases that he would not have seen otherwise. This is also true of the radiologist. It is reasonable to suppose that these individuals would not have sought medical advice until symptoms had appeared. All too frequently the general practitioner does not refer patients for chest x-ray unless they have reasonably clear-cut symptoms, and even then he may hesitate because of the expense involved. Undoubtedly there are scores of patients with indefinite symptoms who should have a chest x-ray as part of their routine physical examination in the proper evaluation of their medical problem.

Our surveys among applicants for employment in the Fire Department and the Department of Education in New York City may be cited as evidence that the survey does place cases under the care of physicians. Since 1937, we have x-rayed the chests of several thousands of such applicants, and we have found, on the average, that 1 per cent are in need of further supervision. It has happened rarely, if at all, that the individual has not immediately sought the advice of his physician, and in some instances he has gone to several physicians for additional consultation. In all of our surveys, literally thousands of individuals have been referred to their physicians for subsequent care. Thus far the Department has had no difficulty in coming to a mutual understanding with the physician regarding our findings and recommendations in these cases, although, of course, not all physicians will follow the recommendations made by the Department. The Department of Health is anxious to assist and cooperate with the physician in these problems, and for this reason we have, since 1920, operated free consultation services for the physician caring for a patient with definite or suspicious symptoms, and yet who is unable to pay standard fees for a chest consultation.

Those individuals not under the care of a physician become immediately a problem for the district clinic, where they receive the same supervision which is provided for a patient and his contacts in any district clinic service.

If the patient discovered in a survey wishes to return to his physician, then after a proper classification of his disease has been made in the central or district clinic, a report is sent to the physician indicating our findings and recommendations. These reports are sent only when requested by the physician, because it has been found that the patient may not go to the physician as he has promised. In all such instances, the case is registered in the same way as any other new case discovered in the city in the district of his residence. Thus if the physician does not assume the responsibility, or if the patient fails to go to his physician for supervision, our district nurse will make a visit to the home and make arrangements for necessary supervision, whether that be under a private doctor or a district clinic.

The third objective of our program has been to stimulate the interest of groups such as industry, schools, labor organizations, and others having an interest in a given population, to assume the responsibility for repeated surveys.

A survey at a given time reveals only the amount of disease that has developed at that time. Thus in the ultimate plan to eradicate tuberculosis, it is necessary to repeat mass surveys in a given population at intervals to detect any new disease which may have developed in the interim. The splendid work of Fellows[8] in the Metropolitan Life Insurance Company, Sawyer,[9] of the General Electric Corporation, and others has clearly indicated the importance of periodic examination in controlling tuberculosis among their employees.

It must be remembered that as the surveys are repeated in a given population each subsequent examination is likely to reveal a lower prevalence of the disease than the previous examination, but also to reveal that the new lesion found is more likely to be of some significance, because of its more recent development.

It has not been our feeling that the Department of Health should assume the permanent administrative control of mass surveys, nor that it is necessarily a responsibility of government to operate indefinitely such services at public expense. If the mass survey is a logical and valuable weapon in disease prevention, which we believe it to be, then those agencies or organizations able to pay for such service should assume as much of that responsibility as possible. In other words, it is desirable for the Department of Health to demonstrate the importance of such work, and it then should be the responsibility of the organization, industry, etc., to adopt it as a regular part of their health program. The Department of Health is definitely interested in the case found by such means, and so long as the important case is reported and placed under proper supervision, we are eager to see as many agencies as possible set up their own survey program. A few examples may be cited to show how this principle has worked out over the years.

A mass survey was made of pupils in the four city colleges some years ago. The prevalence of disease was about $^4/_{10}$ per cent, which was not as productive as in surveys among persons over 20 years of age. There is, however, a definite educational value for surveys among these students, for at an impressionable age they are made to realize that tuberculosis is a real problem, and that there is a definite method of preventing it. Accordingly, we recommended to the Board of Higher Education that a continuation of such studies was desirable, but that our limited funds would have to be directed toward other groups where the prevalence rate was five or more times as high, and where our funds would render the greatest good to the population as a whole. The Board of Higher Education now requires a chest x-ray of all students on an annual basis. They are paid for by the students. The college employs a competent clinician to read the film. Since the Department of Health must determine the eligibility of the person to remain in the school with a tuberculous lesion, all such cases are referred to us for review. Thus, the five city colleges are now operating a sound case-finding program. The Department of Health is made aware of those with latent or manifest lesions.

In 1939, our first survey for organized labor groups was conducted among the members of the Furriers Joint Council. In that study, the Department of Health assumed the entire financial responsibility of the survey. In 1943, when the employment of these workers was at an all-time high level, they felt that they were threatened with a greater tuberculosis risk than previously, and they petitioned us for another survey on the original basis. As funds were not available to the Department to conduct this study, the Furriers Joint Council, through its own funds and a small charge per member, financed the entire operation, with the exception of the re-examination of those with manifest lesions. This latter part of the job was done by the Department of Health as its contribution to tuberculosis control.

Over 50,000 workers in unions have been surveyed by us in the past. Some unions have wanted repeated surveys, but only the Furriers Joint Council has seemed to want them badly enough to finance the venture. These various unions did, however, to our knowledge, pay out some $10,000 in sick benefits, hospital care, etc., to their members found to have tuberculosis in the surveys originally done by us.

In 1942, the Department set up a joint mass

survey program in industry with the Queensboro Tuberculosis and Health Association. The latter organization assumed the responsibility for promotion, and we the conduct of the actual survey at our entire expense. It became necessary for us to withdraw later, but the Queensboro Association has continued the complete survey with their own resources, which includes the survey phase and a consultation clinic for the evaluation of the case found on the survey x-ray. Since the organization is operated on its own, their work in industrial organizations has resulted in Management's paying a considerable part of the cost. All significant cases found in these surveys have, of course, been reported to the Department of Health.

In 1943, a somewhat similar plan was developed by the New York Tuberculosis and Health Association with the Department of Health. It differed, however, in that all cases found to be suspicious or apparently active on the survey x-ray are referred to our Central Chest Clinic for review and classification, the procedure being similar to that used in our own mass surveys. As this Association did not have a consultation clinic that could re-evaluate the cases found by x-ray survey, it seemed unnecessary to set up such a service when the facilities of our Central Chest Clinic were readily available.

Developments in one of the surveys sponsored by this organization offer another opportunity for sharing the responsibility with Management. This particular organization has a competent medical service with adequate facilities to do the re-examination following the survey x-ray. This will mean that our central clinic will not need to examine cases detected in the survey, but that [illegible] ses and report to us

Health Service has recently conducted a mass survey among employees of the O.W.I. and the Port of Embarkation in New York City. This plan developed as a request on the part of the O.W.I. and the Port of Embarkation through Federal channels. The United States Public Health Service, however, would not proceed unless the Department of Health would be responsible for the follow-up of significant cases. We therefore arranged that the Department of Health would assume the responsibility for appraisal of those cases with significant lesions and the indicated supervision for their contacts. The Department also offered counsel on the advisability of patients with apparently inactive lesions continuing in their present occupations, when from the nature of their lesions more desirable occupation was indicated.

Thus the Department has been able to demonstrate the value of mass surveys in tuberculosis in a wide variety of population groups, and, furthermore, it has seen some of the organizations served adopt a program of their own. The Department continues its interest and assistance, particularly in the case with significant tuberculosis, and it continues to aid and abet in an ever-increasing case-finding program that will reach farther and farther into the community and supplement in a substantial way the rather limited amount of such work that could be done through existing resources of the New York City Department.

Summary

1. The mass chest x-ray survey has been a consistent part of the tuberculosis control program of the New York City Department of Health.

2. Mass x-ray surveys and routine chest clinic examinations of the Department over the past ten years have reached an estimated half million individuals.

3. The effectiveness and value of the mass survey is determined by the availability of facilities to promptly and properly classify the significance of the lesion found on the survey x-ray. This has been done by the Department of Health before a case is referred to a physician or to the district clinic.

4. The Department of Health assumes the responsibility for all significant cases found. This responsibility may be shared with physicians or others so long as they are able to carry out the provisions of the Sanitary Code. In such cases, the Department requires biannual reports until such time as the case may be considered to be arrested. There have been three major objectives in our survey program:

A. To demonstrate the prevalence of disease according to age, sex, race, and general economic status.

B. To demonstrate an efficient method of conducting a survey.

C. To stimulate the interest of others to set up within their own organization facilities to provide a regular periodic service.

5. The first two objectives have been accomplished to a satisfactory degree. The third objective has been accepted, and there is every reason to believe that in time an increasing number of organizations will assume their responsibility in this most important enterprise.

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Discussion

Dr. Ralph M. Vincent, *Binghamton*—There is no doubt that Dr. Edwards' report on the mass chest x-ray survey which has been carried on in New York City demonstrates the value of such a program as a case-finding procedure in tuberculosis control. The discovery of several thousand cases of clinically significant tuberculosis among apparently healthy individuals brings us face to face with the realization that there is an immense amount of work to be done before the disease can be eliminated or even satisfactorily controlled.

For some years lack of funds, personnel, and equipment has necessitated the limitation of our case-finding efforts to a large extent to the examination of contacts of known cases of tuberculosis. Although we believe this to be the most fertile field for the discovery of new cases of tuberculosis, reports of x-ray surveys such as Dr. Edwards has made emphasize the need for extension of our search for cases to other groups of the population whenever the necessary facilities are available.

During the past two years a mass survey has been in progress in industrial plants located in Broome County. To date approximately 13,500 films have been interpreted and the yield of clinically significant tuberculosis has corresponded very closely with Dr. Edwards' findings—about 0.6 per cent.

We have been impressed by the fact that very few of the cases discovered in the survey had been reported previously. Another encouraging feature of the work was that most of the cases were in the early stages of the disease.

In our locality officials of several industries became interested in securing x-rays of employees and contributed toward the purchase of portable equipment and the cost of operation. The service is without cost to the employee, on company time, and on a purely voluntary basis. The response has been excellent.

Reports of chest pathology are forwarded to the District Office and are referred to the proper county or city health agency for follow-up.

Dr. Edwards has stressed the necessity of prompt re-examination of persons with suspicious or significant lesions and we are endeavoring to improve our methods to this end. Our procedure is to notify the personal physician of the employee relative to the survey findings in his patient. The employee is urged to consult his physician for further examination and advice. There is some resultant delay which in many instances is longer than is desirable, but this seems to be unavoidable under the present circumstances. These are all people who are working regularly and in most instances feel physically fit. Physicians are extremely busy and it is difficult to arrange for examination at a mutually satisfactory time. Much of this difficulty probably would be eliminated if patients could be referred directly to clinics.

Diagnosed cases are immediately put under supervision and an attempt is made to secure examination of family contacts as soon as possible.

Eventually it is planned to locate the x-ray equipment at a place which may be reached conveniently by applicants for employment in industries in which the workers have been examined. The pre-employment x-ray should prevent the introduction of open cases in a plant where they would be a potential source of infection to workers already examined and found to be tuberculosis-free.

Dr. Edwards has described a profitable case-finding procedure which can be carried on efficiently, and our task now seems to be outlined in the third major objective which was mentioned, namely, to stimulate interest in this project among other organizations. Certainly, it is only through cooperation of health agencies, official and nonofficial, labor, industry, and all those interested in community betterment, that tuberculosis can be controlled and eventually eliminated.

Dr. William Siegal, *Albany, New York*—For more than ten years New York City, under the leadership of Dr. Edwards and his coworkers, has been the scene of mass x-ray surveys of different population groups. What the objectives have been, what results have been attained, and how such surveys and related activities can be integrated with the general tuberculosis control program have been ably set forth in Dr. Edwards' paper. Such a wealth of material has been presented that to discuss all the different points would take too much time and detract from the effectiveness of a worth-while contribution. One or two points, however, might be emphasized.

Dr. Edwards, at a recent meeting, presented a discussion entitled "Case Finding Is Only the Beginning." What profits it to find a lot of new cases with no facilities or preparations to carry out the next logical steps? In planning and arranging for such projects, especially in industry, the physical arrangements and actual x-raying do not constitute the entire project. In promoting such programs in upstate New York, the Tuberculosis Division of the State Department of Health has strongly recommended that such projects be thought through to the end and that arrangements be completed and understandings be reached with management, labor, organized medicine, official and unofficial agencies, for the provisions of needed supervision and therapy for the workers found to have tuberculosis, for family assistance where necessary, and even in some cases rehabilitation and job security. Furthermore, in fitting mass x-ray surveys, especially of industrial workers, into the entire tuberculosis control program, the associated problems of pre-employment x-rays and of periodic resurveys are receiving increasing consideration.

In the description of the mass x-ray survey pro-

Director, Division of Tuberculosis, New York State Department of Health.

gram in New York City and how it has been integrated with the already established services of the Tuberculosis Bureau of the Health Department, there is presented an excellent demonstration of the place and importance of such a service in the general control program. With minor modifications a similar plan could probably be adapted to any community where comparable conditions, population concentrations, public-health organization, and leadership and geographic areas existed; that is to say, the larger cities with progressive health departments. It will be noticed that the important feature, as it should be, of the plan in New York City is the further follow-up and control of the newly discovered cases through the various strategically located clinics conducted by the Tuberculosis Bureau. There is one political unit in this city, one public health agency—the Health Department—and one set of standards to follow.

In upstate New York, because of the large number and great variety of local and health organizations, it is understandable that somewhat different methods than those outlined by Dr. Edwards would have to be employed to obtain similar results. One of the important considerations is that funds have not been available to the State Health Department to conduct such special surveys. Nevertheless, this did not prevent the Department from promoting them on a local basis, and in the past three years, many persons have been examined. A large number of these surveys have been sponsored by local volunteer agencies. Films are interpreted locally by the members of the staffs of local public-health agencies or tuberculosis hospitals, or by the members of the staff of the Division of Tuberculosis. The names of the individuals whose films, interpreted in the Central Office, indicate evidence of pulmonary tuberculosis or other intrathoracic conditions are referred to the appropriate district health offices to institute necessary follow-up and such supervision as is indicated by the follow-up examinations. When such projects are handled entirely on a local basis, the follow-up is a local responsibility. The point is that essentially all efforts are made to obtain the supervision of those found to need it.

As for the results, they agree substantially with those of Dr. Edwards. Approximately 6 to 7 of every 1,000 individuals are diagnosed as having clinically significant tuberculosis. Subsequent follow-up further reduces this number to 2 to 3 of every 1,000 [illegible] treatment.

Dr. J [illegible] came to Ne[illegible] the Bureau of Tuberculosis was on a part-time basis and it was quite inadequate in personnel and in clinic equipment. Dr. Edwards, through clear vision and hard work, has built a Bureau with clinic facilities to be proud of. He has taken the leadership and responsibility and yet has welcomed the assistance and cooperation of other agencies. Dr. Edwards has played an important part in the development of mass case-finding of tuberculosis.

As one listened to this paper one might get the impression that the accomplishments of the Bureau of Tuberculosis in the City Health Department have been easily won. This would be an incorrect impression. The problems to be met with in tuberculosis work in the city of New York have been as great as in any other community. The splendid advance has been made in spite of difficulties.

I do not agree with those who are disturbed that the case-finding of tuberculosis will get ahead of the hospitalization and sanitorium care facilities. Even if such facilities are not now available for all cases found, the person who realizes that he has tuberculosis is more likely to take better care of himself and be more on guard against spreading his infection than if he is ignorant of the fact that he has the disease.

Besides this, the recognition of new cases will add pressure to the demand for more adequate hospital care.

Dr. John H. Korns, *White Plains, New York*—What has been the experience in New York State as to the liability of employers for compensation in case tuberculosis is found among workers? I ask this because a neighboring district has met with objection to mass chest x-ray surveys in industry by the employers who fear they may become involved with great expense if employees are found to be tuberculous

Dr. Allan Hurst, *New York City*—Dr. Plunkett has raised the question as to whether the Department of Health should divide the responsibility of the supervision of tuberculosis cases with other agencies.

The Department of Health is the only agency that should be responsible for the supervision of tuberculosis cases and any work which is done by other agencies on such cases should be cleared through the Bureau of Tuberculosis. This is the policy that has been followed for the past many years in New York City and cooperation is secured by conferences with responsible persons in charge of such agencies. This is especially true in the field of rehabilitation and there is a constant interchange of opinions between the Department of Health and these voluntary agencies. Dr. Edwards' paper, however, stresses the necessity for industry's assuming the cost of survey work among its own employees.

The fee for the x-ray is usually divided between management and the employee to the mutual satisfaction of both. It has been found from experience that when the employee contributes a small sum, his interest is heightened to the extent that he is anxious to follow up the finding of the pathologic lesion in his chest x-ray. All cases found in such surveys are reported to and followed by the Bureau of Tuberculosis, Department of Health.

Dr. Korns has asked about what responsibility management assumes after the finding of the case of tuberculosis among the employees. In those instances in which the lesion appears to be stable and the man is permitted to work, there has been no difficulty in persuading industry to continue the man at his employment with supervision of his case by either the Health Department, the medical division of the plant involved, or private care. In only a few instances have we heard that management has paid for the care of active cases of tubercu-

losis. Certain progressive organizations, such as the Metropolitan Life Insurance Company, have excellent sanatorium facilities, and other plants with good medical units have been able to do a great deal for the care and rehabilitation of their employees who have developed an active tuberculous process. It is to be hoped that other plants will develop some such scheme in the future for care of this type.

THE "AGE LIMIT" AGAIN

"We must avoid inbreeding in our surgical societies."

A truism, certainly, and no one would dispute it. The trouble is that, like most clichés, it has become almost meaningless through constant reiteration.

Commonly it expresses a sense of impatient irritation that posts of honor are not more quickly open to an ambitious young man who has just stepped over the threshold of the profession. If only the "old men" (meaning those of 50, 60, or 70, according to the age of the complainer) would get out of the way, new blood and new energy could be poured into the veins of this or that society and it would forthwith bound forward with youthful vigor.

Sober common sense reveals the absurdity of such thinking. The profession of surgery is practiced by men of many stages of maturity and many degrees of skill, and years are by no means a trustworthy measure of either maturity or skill.

To make fullness of years a prerequisite for the assumption of responsibility is deplorable, of course. Plenty of our younger men earn the right to honor before their hair turns gray. We should find better ways of using such men in positions of responsibility and leadership.

But it is even worse to equate fullness of years with senility and to force arbitrarily into retirement men who attain a given number of years of living. That is a strange denial of facts every surgeon knows from his own practice and experience. We all know that old age sometimes swoops down upon a man of 40, rendering him sclerotic of body and set of mind, and sometimes passes over, with inexplicable carelessness, a man of 60 or 70, leaving him sound and hale, with all the vigorous mental power of youth. Titian painted better at 90 than he did at 40, and had he been subject to a "retirement" ruling for artists, the world would have been deprived of some of the greatest masterpieces ever painted. All of us know of instances where great contributions to surgery and medicine have come from men beyond the age which many urge as the limit to usefulness. The present war crisis has put back into harness many medical and surgical men who had, for one reason or another, retired from active practice. The job they are doing should be adequate answer to those who urge that years can alone put a limit to a man's usefulness.

Surgery moves forward at a breathless pace. The heights which surgical knowledge reached in the days of Ambroise Paré look to us, from the new heights we have since attained, like the merest foothills. Much of what seemed the last word in surgical technic in the days of Billroth interests us now merely as an antiquarian curiosity. Most of us who have practiced surgery for ten, or twenty, or thirty years look back to things that were taught us in medical school with a combination of smile and shudder—they were so wrong! One of the essential qualities for a good surgeon must be the flexibility of "mental muscle" to enable him to keep abreast of a profession on the move. But it is well to remember that such flexibility is by no means the unique possession of youth.

Cocky James Primose was a physician on the make when he set out to demolish the revolutionary ideas of "little Dr. Harvey." He brought to his task a good deal of the vigor of youth. And James Young Simpson, valiant pioneer in the movement toward hospital improvement in his day, was totally unable to open his mind to the discoveries of young Joseph Lister, which were to play so great a role in removing the horror from surgery and from hospitals.

As we strive to keep our surgical societies from the so-called evils of "inbreeding," it is well to remember these things. Inbreeding comes—and is bound to come—when control of a surgical society passes into the hands of men seeking security rather than truth, prestige rather than service to humanity.

When that happens those in power tend to draw about them men of their own kind until the degeneration of the body is complete. But there will be young men as well as older men in such a group. No easy application of an arbitrary retirement rule can break their stranglehold.

The difficult task we must keep always before our eyes is that of checking within our surgical societies the inbreeding of ideas which have no place there. We can do it only as we learn to utilize fully the capacities of the young men and the middle-aged men and the older men in our ranks, as the army uses both the strength and brawn and resilience of youth and the seasoned wisdom of old campaigners.—*Max Thorek, in Journal of the International College of Surgeons, July–Aug., 1944*

FURTHER OBSERVATIONS ON ONE-DAY TREATMENT OF SYPHILIS WITH FEVER AND MAPHARSEN

NATHANIEL JONES, M.D., Surgeon (R), JOSEPH L. HUNDLEY, M.D., P. A. Surgeon (R), ALLEN E. WALKER, M.D., Assistant Surgeon (R), U.S.P.H.S., CHARLES M. CARPENTER, M.D., * STAFFORD L. WARREN, M.D.,* Rochester, New York, and HENRY HANSON, M.D.,† Jacksonville, Florida

PRELIMINARY results in the treatment of early syphilis with fever and mapharsen have recently been published.[1] The present report extends observations on the original group of 280 patients for a period of eight months and also includes data on the treatment of an additional 141 patients observed for a minimum period of three months.

Procedure

Selection of Patient.—Patients selected for the study are limited to those with clinical evidence of early syphilis who deny previous antisyphilitic treatment. The diagnosis is verified by darkfield and serologic examinations. Contraindications to this type of therapy are active pulmonary tuberculosis, heart disease, class II and class III, active renal disease, peripheral vascular disease of any type, and extreme obesity. The majority of the patients treated thus far were young adults in the age group from 15 to 24 years; 77 per cent were Negro; 23 per cent, white; 44 per cent, male; and 56 per cent, female.

Examination and Preparation of Patient.—The patient is admitted to the hospital on the afternoon of the day prior to treatment and given a general physical examination. A chest radiograph and an electrocardiograph are made whenever indicated. A urinalysis and a test for hemoglobin are the only laboratory examinations carried out routinely. Before treatment, the patient is hydrated orally with approximately 3,000 ml. of water and is given a total of 12 Gm. of sodium chloride in 4-Gm. doses at approximately four-hour intervals. No special dietary precautions are observed. Breakfast is permitted on the day of treatment.

Treatment.—The treatment consists of the concurrent use of fever and mapharsen. The amount of drug and the time of administration in relation to the fever have been based on results obtained in the treatment of experimental syphilis in rabbits.[2] Because the animal experiments have shown that fever increases the toxicity of mapharsen, smaller amounts of the drug were employed for the treatment of the first series of patients in order to determine safe limitations of the procedure.[3] Three schedules of treatment have been used.

Administration of Mapharsen.—Schedule A: Mapharsen in the amount of 1 mg. per kg. of body weight is administered during the induction period of the fever, but before the temperature reaches 39.5 C. (103 F.). The calculated amount of drug is dissolved in sterile triply distilled water and injected intravenously.

Schedule B: Mapharsen in the amount of 1 mg. per kg. of body weight is injected intravenously in the evening, and fever therapy is carried out the following day. A second intravenous injection of 1.5 mg. of mapharsen per kg. of body weight is given at the termination of the fever. The calculated amounts of the drug are dissolved in sterile triply distilled water and injected intravenously.

Schedule C: Mapharsen in the amount of 2 mg. per kg. of body weight is administered at the termination of the fever. The drug is dissolved in distilled water as above and then added to 250 ml. of 5 per cent glucose in a 0.85 per cent solution of sodium chloride and is injected intravenously by the drip method. This procedure requires about fifteen minutes and is usually completed by the time the temperature has receded to 40.5 C. (105 F.).

Fever Therapy.—At 7:30 A.M. on the day of treatment, the patient is placed in a Rochester Radiant Energy Cabinet.[4] The specific gravity of the blood plasma is used as a guide to insure a normal fluid balance during fever.[5] The temperature is gradually elevated to 41.1 C. (106 F.) during a period of two hours and is maintained at that level for five hours. The rectal temperature is recorded continuously by means of a resistance thermometer and is also checked periodically with a clinical thermometer. At ten-minute intervals the pulse rate, respiratory rate, and temperature are recorded. During the fever the patient is given from 300 to 400 ml. of fluid per hour by mouth. Throughout the treatment the patient is under constant supervision

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* From the Departments of Bacteriology and Radiology, the University of Rochester School of Medicine and Dentistry, Rochester, New York.

† From the Florida State Board of Health, Jacksonville, Florida.

TABLE 1.—Results of Treatment of Syphilis with Fever and Mapharsen

Treatment Schedule	Stage of Syphilis	Number of Cases Treatment	Observation Period (Months)	Relapses: Clinical No.	Clinical Per cent	Serologic* No.	Serologic* Per cent	Probable Reinfection No.	Probable Reinfection Per cent
Schedule A[1]	Seronegative primary	10	12 or more	1	10.0	0	...	2	20.0
	Seropositive primary	18		4	22.0	0	...	1	5.5
	Secondary	23		8	34.8	0	...	3	13.4
	Early latent	23		2	8.7	0	...	0	...
	Other	4		0	...	1	25.0	0	...
Total		78		15	19.2	1	1.3	6	7.4
Schedule B[2]	Seronegative primary	11	12 or more	1	9.1	0	...	0	...
	Seropositive primary	14		2	14.3	2	14.3	0	...
	Secondary	55		8	14.4	1	1.8	1	7.1
	Early latent	47		2	4.3	0	...	1	1.8
	Other	10		0	...	0	...	0	...
Total		137		13	9.5	3	2.2	2	1.5
Schedule C[3]	Seronegative primary	5	3–9	0	...	0	...	0	...
	Seropositive primary	25		6	24.0	0	...	0	...
	Secondary	73		9	12.3	2	2.7	0	...
	Early latent	71		1	1.3	1	1.3	0	...
	Other	32		0	...	2	...	0	...
Total		206		16	7.8	5	2.4	0	...

* No recrudescence of symptoms.
[1] One mg. of mapharsen per kg. of body weight administered during induction of fever.
[2] One mg. of mapharsen per kg. of body weight administered twelve hours prior to fever; 1.5 mg. of mapharsen per kg. of body weight administered at termination of fever.
[3] Two mg. of mapharsen per kg. of body weight administered at termination of fever.

of a nurse especially trained for this type of therapy.

At the termination of the five-hour fever, the cabinet is opened to permit defervescence, which usually requires about one hour. The patient is transferred to bed and the temperature is observed hourly until three normal readings (37 C. or 98.6 F.) have been recorded. No restrictions are placed on the patient other than rest in bed for several hours. The majority of patients are discharged from the hospital on the morning following the day of treatment.

Observations Made on Patients After Treatment. As described in our first report,[1] patients are to be followed for a period of five years, returning to the clinic weekly during the first eight weeks, monthly for the following six months, every three months during the next year, and annually thereafter. At each follow-up visit, observations are made for clinical evidence of syphilis and blood is collected for a quantitative Kahn test. Spinal fluid is collected for examination either before the patient leaves the hospital or at the first return visit.

Results

To date a total of 662 patients have been treated by the three methods described. This report, however, covers only 421 patients who have had no treatment for syphilis either prior to or following the specified treatment with fever and mapharsen. Seventy-eight of these patients treated according to Schedule A have been observed from twenty-two to thirty months. One hundred and thirty-seven patients treated as outlined in Schedule B have been followed twelve to twenty-two months, and the remaining 206 treated by means of Schedule C have been observed from three to nine months (Table 1).

Of the 78 cases treated according to Schedule A, 15 (19 per cent) showed clinical relapse, 11 occurring within the first four months. A serologic relapse occurred in only one patient. Six of the patients were reinfected.

Of the 137 cases treated according to Schedule B, 13 (10 per cent) have shown clinical relapse to date; and 3 (2 per cent) developed a serologic relapse. There were 2 cases of probable reinfection in this group.

Of the 206 cases treated according to Schedule C, only 16 (8 per cent) have shown clinical relapse to date. Serologic relapse was observed in 5 instances (2 per cent). As yet none of the cases have been considered as reinfection.[2]

As was anticipated, the best results were obtained on patients with the seronegative primary form of early syphilis. Only about 10 per cent of the patients treated with Schedules A or B showed clinical relapse, and as yet none have occurred in 5 patients on Schedule C.

Eight (35 per cent) of 23 patients with secondary syphilis treated with Schedule A have shown a recurrence of lesions. On the other hand, far better results were obtained with Schedules B and C.

With the former schedule, 8 (14 per cent) of 55 patients developed clinical relapses, and with Schedule C only 9 (12 per cent) of 73 patients developed relapses.

Fewer clinical relapses occurred following the treatment of early latent syphilis than following the treatment of early syphilis. The relapses

to date for Schedules A, B, and C are 9 per cent, 4 per cent, and 1 per cent, respectively.

The serologic tests for syphilis carried out subsequent to treatment have shown a similar pattern of reversal regardless of the schedule of therapy. A marked decrease in reagin in the blood of patients with primary and secondary syphilis occurred during the first two months after treatment. Thereafter, the disappearance of reagin was much less rapid. In the case of patients treated for early latent syphilis, the positive serologic test was reversed more slowly than in early syphilis.

Discussion

The results obtained from continued observations on patients treated with fever and mapharsen provide further evidence that this mode of therapy compares favorably with other forms of intensive therapy for early syphilis. In our preliminary report[1] the results with Schedule C appeared superior to Schedules A and B. Schedules B and C, employing approximately twice as much mapharsen as Schedule A, now appear to be more effective. A valid comparison cannot be made between the use of Schedules B and C because of the shorter period of time patients have been observed after treatment with the latter schedule. The data at present, however, suggest that Schedule C, in which 2 mg. of mapharsen is given at the termination of the fever, is less effective in the treatment of seropositive primary syphilis than Schedule B, in which 1 mg. of mapharsen per kg. of body weight is injected prior to the fever and 1.5 mg. is injected at the termination of the fever. Twenty-four per cent of the patients with this type of the disease failed to be cured with Schedule C, whereas only 14 per cent failed to be cured with Schedule B.

None of the patients treated by these methods showed evidence of nephritis, a complication reported by Thomas, Wexler, Schur, and Goldring[6] to occur subsequent to the concurrent use of fever and arsenicals. It should be pointed out, however, that the total dose of mapharsen which these investigators administered to their patients was far in excess of the amount employed in the procedures described herein.

The majority of relapses, both clinical and serologic, occurred during the first three months after treatment, most of them developing in patients with secondary syphilis. The cases listed as reinfection met the criteria of possible reinfection as set forth by Stokes, Cole, Moore, O'Leary, Parran, and Wile.[7] Relapses are unusual after the first four months, but the final outcome cannot be predicted until the end of the five-year period of observation.

As previously pointed out, the concurrent use of fever and mapharsen in the treatment of syphilis offers a number of advantages. The treatment can be completed within eight hours, and the entire period of hospitalization averages only about forty-eight hours. Of importance is the fact that the patient is usually able to resume work the day after leaving the hospital. Laboratory tests such as chemical examinations of blood and liver and kidney function tests are unnecessary. Under the present arrangement, the cost of treatment is about $30 per case. Severe complications, such as arsenical dermatitis, hepatitis, encephalopathy, or renal damage have not occurred among the cases treated. It was necessary to discontinue treatment in only 3 per cent of the cases.

Summary

Continued observations on the original group of 280 patients as well as on 141 additional patients corroborate preliminary findings that the combined use of fever and mapharsen is effective in the treatment of early syphilis as well as in early latent syphilis.[1] Better results have been obtained with Schedules B and C, in which larger amounts of mapharsen (2.5 and 2.0 mg., respectively, per kg. of body weight) were employed than in Schedule A. The results from the use of Schedules B and C are approximately comparable except in the treatment of seropositive primary syphilis, in which B appears to be superior.

References

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Discussion

Dr. Evan W. Thomas, *New York City*—It is a sign of progress when discussions about the place of education in the control of venereal disease turn from exhortation and abstractions to scientifically reported data of actual accomplishment. For that reason Dr. Carpenter's paper is of unusual significance. The results of the poster campaign are so striking that the experiment deserves widespread attention. It is noteworthy that the best results seem to have come from the posters.

This study is being carried out in cooperation with the Division of Venereal Diseases, U.S. Public Health Service.

Appreciation is extended to Miss Helen Bradley and to Miss Mary Niland, Record Analysts, U.S. Public Health Service, for their work in the presentation of the above data.

As most of my time is spent in the care of patients with syphilis, I would like to devote the rest of this discussion to the paper of Dr. Jones and his coworkers. These investigators deserve special commendation for having started their work with animal experiments. This enabled them to plan their one-day treatment of early syphilis in humans more intelligently than would otherwise have been possible. Two factors stand out in their treatment: (1) the relatively small amounts of mapharsen used; and (2) the restriction of high temperatures to five hours.

From my experience these precautions were wise from the standpoint of the safety of treatment. Whether they are justified from the point of view of therapeutic results will be discussed later. In my opinion the hazards of mechanically induced fever are greater than have generally been reported. When patients are properly selected and under the care of experienced personnel it is probable that mechanically induced temperatures of 105 to 106 F., without the addition of arsenical drugs, can be maintained for eight or ten hours with reasonable safety in most cases. Existing statistics from highly trained staffs of experienced workers prove this; but it must be recognized that the fatalities which have resulted from such prolonged fevers in numerous hospitals rarely find their way into the literature. When fever is combined with mapharsen, as Dr. Jones has pointed out, the risk of treatment is increased. Our experience at Bellevue Hospital with combined electropyrexia and mapharsen therapy confirms the general principles which Dr. Jones and his coworkers have established concerning its toxicity.

With a two-day plan of treatment which consisted of four injections of about 1 mg. of mapharsen per kilogram of body weight each, and seven hours of mechanically induced fever of 105.8 F., we encountered severe though transient damage to the kidneys. We subsequently had little difficulty with a five-day plan of treatment which consisted of one daily injection of 0.06 Gm of mapharsen and two sessions of four hours of fever at temperatures of 105.8 F. Evidently, from the report given this morning, this five-day treatment was unnecessarily long. Unfortunately, our work at Bellevue Hospital with electropyrexia had to be abandoned for lack of technical assistants. Granting that our experience with this type of therapy has been limited, I have not been particularly impressed with the results achieved by our two-day treatment.

With our two-day schedule, which was not unlike schedule B of Dr. Jones and his coworkers, except that we gave more mapharsen and more hours of fever, we did not have as good results as with more extended schedules of therapy. Of 48 patient who received the two-day treatment 28 were observed for more than six months. Of the 28 patients kept under observation for more than six months, 5 relapsed, and 2 still have blood Wassermann titers greater than 8, the percentage of satisfactory results being only 74.7. Of 55 patients given the five-day treatment 36 were observed for more than six months; relapses or reinfections occurred in 4, and 2 still have blood Wassermann titers greater than 8, the percentage of satisfactory results being 83.3.

In compiling our statistics no differentiation was made between relapses and reinfections. From my experience with well over 2,000 rapid-treatment courses for early syphilis, it is true that most relapses occur within the first six months after treatment, and reinfections are probably much more frequent than relapses after six months of follow-up. Nevertheless, careful analysis of our relapses or reinfections raises questions which make me hesitate to distinguish between them in compiling statistics.

But even if the reinfections are grouped with the relapses, the results of treatment by Schedule B in Dr. Jones' report compare favorably with most other types of rapid treatment. I am not entirely clear whether all of the patients listed in the table given by Dr. Jones were actually kept under observation. For comparative purposes it seems to me desirable to state in all statistics how many patients in a series were lost within the first six months of follow-up and how many were kept under observations for six months or more. It also seems desirable to give some information about the number of patients with persistently positive serologic tests. But, in spite of my curiosity about these points, I am convinced that the authors of the report on a one-day treatment for early syphilis are to be congratulated both for their scientific approach to the problem and for their apparent success so far.

Dr. B. E. Roberts, *Poughkeepsie, New York*—I believe that it may be of interest to point out, although this is by no means an original observation, that while, on a strict percentage basis, rapid methods of syphilis treatment may not offer quite so much hope of cure to the individual patient as the standard methods, the aggregate result of the rapid method may be much better from a community standpoint. The reason for this is that experience has shown that a large proportion of patients do not complete their treatment under the standard methods, while very few would not complete their treatment if a rapid method is used.

NO CURE FOR LEUKEMIA

"There is no new drug which offers any hope in the treatment of acute leukemia (a fatal disease in which there is a marked increase in the number of white blood cells)," the *Journal of the American Medical Association* for December 9 says in answer to an inquiry.

They add, "Reports of cures of new treatments of leukemia appear frequently in the press. The index of one large newspaper contains seven reports of new treatments for leukemia in the past six years; none of these have proved successful. If a specific agent for leukemia is discovered, it would undoubtedly receive prompt recognition in the *Journal*."

EVALUATION OF CERTAIN EDUCATIONAL PROCEDURES IN A PROGRAM FOR THE CONTROL OF VENEREAL DISEASE*

CHARLES M CARPENTER, M D **, Rochester, New York, and MILLARD E WINCHESTER, M D ,† and ALLSTON GOURDIN, M D ,† Brunswick, Georgia

KNOWLEDGE of preventive measures for the control of disease fulfills its ultimate purpose only when it is available to and utilized by the people for the protection of their health Information is now adequate to prevent and control most of the communicable diseases, nevertheless, many of these maladies are still rampant The venereal diseases are an outstanding example Recognizing the importance of education in venereal disease control, the United States Public Health Service and other agencies have broadened their programs to include education Among the challenging needs in this field are (1) the dissemination of information on venereal diseases to the groups with the highest rate of infection, (2) the teaching of venereal disease education in schools, and (3) the evaluation of educational methods

In carrying out venereal disease programs in a Southern community for the past several years, attempts have been made to evaluate the educational procedures employed These include principally the assistance of health committees in Negro churches, venereal disease education in Negro schools, and the use of venereal disease posters in public lavatories

Glynn County Project

Educational Program.—Three years ago an intensive project directed toward the community control of gonorrhea was undertaken in Glynn County, Georgia, at the Board of Health in cooperation with the University of Rochester School of Medicine and Dentistry and the United States Public Health Service The population of this county, which normally is approximately 20,000, one half being Negroes, has doubled since the war Adequate facilities were first made available for diagnosis and treatment The community was then made aware of the prevalence of gonorrhea the available facilities, and the newer methods of therapy In fact, every measure was taken to encourage patients to seek examination by private physicians or at public clinics Articles appeared regularly in the press giving information on the special venereal disease problems in the community and announcing the program and the facilities offered Radio programs prepared and presented by the staff working on the project were broadcast weekly for a period of six months Talks and discussions on gonorrhea were presented by physicians before the local civic clubs, at Negro theaters, and in churches

Widespread use was made of venereal disease handbills and posters, designed to meet the specific needs of this community The posters bore a conspicuous, brief message directed toward a five-point program for the prevention and control of gonorrhea (Fig 1) Early in the program they were distributed in person as widely as possible, particularly among Negroes who had assembled in groups about the community, at theaters, and on street corners Later, they were posted in public lavatories throughout the community, in large industrial plants, dormitories, and recreation centers of the war housing projects, "juke houses," hotels, restaurants, pool rooms gasoline stations, and tourist camps

Negro churches were utilized as centers for the dissemination of information on venereal disease A health committee, consisting of the minister as chairman, and two young men and women, was formed in each church A community Negro health committee, comprising a physician, a dentist, a school principal, a prominent business man, and one of the leading ministers, was selected to cooperate with the Board of Health in carrying out the venereal disease program and to assist with the direction of the educational work of the church health committees Physicians and nurses from the Board of Health met with the church health committees monthly or bimonthly to teach them the facts about gonorrhea Suitable printed materials were distributed to committee members, who conveyed the information to the membership of the church by arranging discussion meetings, distributing literature, and affixing posters in public lavatories

An effort was made to incorporate the teaching of venereal diseases in the Negro schools Cooperation was extended by the superintendent of education and the principals of several schools to undertake an educational program in the fifth to twelfth grades Support of the parents was readily obtained through the already organized church health committees First, an

Read at the Annual Meeting of the Medical Society of the State of New York New York City May 9 1944

* This study is being carried out in cooperation with the Division of Venereal Diseases U S Public Health Service

** University of Rochester School of Medicine and Dentistry Rochester New York

† Glynn County Board of Health Brunswick Georgia

GLYNN COUNTY BOARD OF HEALTH
HAS 5 POINTS OF INFORMATION TO

STOP GONORRHEA

(THE CLAP)

1. Gonorrhea is a common disease among young men and women.
2. Sulfathiazole pills, a new drug, taken by mouth usually cure gonorrhea in one week.
3. Don't waste money on patent medicines. They will not cure gonorrhea.
4. Gonorrhea and syphilis are two different diseases. Sulfathiazole pills will not cure syphilis.
5. The pills for gonorrhea may be obtained from your family doctor, or from your Health Officer.

FREE CLINICS OPEN DAILY — 8:30 A.M. To 5:00 P.M.
1304 Richmond Street

In Cooperation with the Georgia Department of Public Health and The United States Public Health Service.

M. E. WINCHESTER, M.D. Commissioner of Health
C. M. CARPENTER, M.D. Special Consultant, U.S. Public Health Service

FIG. 1

attempt was made to determine the knowledge of venereal disease among children from 12 to 18 years of age. An unannounced written examination, consisting of five basic questions, was given to 471 pupils (Table 1).

To determine the educational value of posters, one was designed to include pertinent facts concerning the prevalence, cause, mode of transmission, prevention, and treatment of venereal disease (Fig. 2). The posters were placed in the school lavatories without attention being directed to them. Six weeks after the information was made available in this form, the same examination was repeated unannounced.

Results and Evaluation of Educational Methods.—The effectiveness of educational methods is at best difficult to assess, because of numerous uncontrolled factors. In the present study, the evaluation was based upon (1) questioning of patients to determine the medium that directed them to the venereal disease clinic, and (2) comparison of knowledge of venereal disease among school children before and after displaying posters in the lavatories, as measured by written examination.

As a method of directing patients to venereal disease clinics, the use of posters in public lavatories has proved more effective than all other methods. Interview of 604 patients who applied voluntarily for examination and treatment revealed that 461, 76 per cent, reported as a result of having read the poster (Table 2). Of the 461 patients whom the posters directed to the clinic 297, 65 per cent, had venereal disease. Two hundred and sixty were men and 37 were women. With regard to race the numbers were approximately equal; 145 were white, 152 colored.

TABLE 1

GLYNN COUNTY BOARD OF HEALTH
in cooperation with
GLYNN COUNTY BOARD OF EDUCATION

Name.....Age.....Address.....
School.....Grade...Date.....

Question 1. Name the two most common venereal diseases.
Answer.....

Question 2. Are they caused by filth, strains, germs, or spoiled food?
Answer.....

Question 3. How do venereal diseases spread from person to person?
Answer.....

Question 4. How can venereal diseases be prevented?
Answer.....

Question 5. Name new drugs or medicines that will cure venereal diseases.
Answer.....

M. E. Winchester, M.D., Commissioner of Health — C. M. Carpenter, M.D., Special Consultant, U.S. Public Health Service — J. S. Wilkerson Principal

The first unannounced examination given to pupils in the fifth to twelfth grades revealed a dearth of accurate information on venereal disease, even among the older students. The class averages ranged from 15 per cent in the fifth grade to 63 per cent in the twelfth grade (Fig. 3). In general, boys possessed more knowledge than girls. There was evidence that even the younger children knew of the existence of venereal diseases, and that they are caused by "germs." The methods of spread, prevention, and treatment, however, were poorly understood by all.

Re-examination of the pupils six weeks after the posters were affixed in the lavatories showed a marked increase in knowledge, demonstrating that this simple method had resulted in the acquisition of reasonably accurate information. Class averages improved from 20 to 300 per cent (Fig. 3).

The health committees in Negro churches likewise proved effective in the educational program. An accurate measure of the assistance rendered by this group cannot be made. In Vance County, North Carolina, however, where the educational program at the present time consists only of the effort put forth by the church

TABLE 2.—RESULTS OF INTERVIEWS TO DETERMINE MEDIUM DIRECTING PATIENTS TO VENEREAL DISEASE CLINIC

Referred by	Number	Percentage
Posters	461	76
Doctors and druggists	91	15
Spouse or paramour	52	9
Total	604	100

committees, the attendance at the venereal disease clinic has markedly increased and the three Negro physicians report that many more patients are seeking examination and treatment. Furthermore, public discussion at churches and cooperative efforts among members have tended to remove the stigma attached to these infections. The support of the church was instrumental in paving the way for carrying out the educational programs in the schools.

Evaluation of the Use of Venereal Disease Posters in Public Lavatories

For many years, placards have been employed in public lavatories by state and municipal health departments to direct attention to venereal disease. A survey was made of the materials used by all state health departments and by thirty-seven of the largest cities in the United States. In response to inquiries as to the use of such aids, their value, and a request for samples, replies were received from forty-five states, from Puerto Rico, Hawaii, and the Virgin Islands, and from twenty-six of the thirty-seven cities.

Eighteen states and twelve cities reported that venereal disease posters were not used in public lavatories. Of the twenty-seven states and fourteen cities reporting the use of placards, most were found to be of similar type and based upon information prepared by the Division of Venereal Diseases of the United States Public Health Service. Twelve states and seven cities designed their own posters (Table 3).

The posters were evaluated for their effectiveness in directing patients to seek medical care for the diagnosis and treatment of venereal disease, and were studied from the point of view of content, design, and composition. The majority were found to be unsatisfactory principally for the following reasons: the information was *not stated clearly and simply; too much information* was crowded into a small space; arrangement and composition were poor; posters lacked *appeal in the form of color or design; the type* was too small, or was so varied as to cause confusion; and the material was unsatisfactory.

In response to an inquiry as to the value of posters in public lavatories, health commissioners and venereal disease control officers, with two exceptions, supported the belief that this medium was useful. One commissioner of health made

AVOID VENEREAL DISEASES

1. Gonorrhea and syphilis are two different crippling venereal diseases common among colored young men and women. Of every 1,000 colored men in the State of Georgia, 327 between the ages of 18 and 38 have syphilis. Even a greater number of men and women have gonorrhea.
2. Venereal diseases are caused by tiny germs which usually spread from person to person by sexual intercourse.
3. Prevent venereal diseases by not having sexual intercourse until after marriage.
4. *Venereal disease can be cured with new drugs. Consult* your family physician, Board of Health or school principal, for more information.

THIS PROJECT IS BEING CARRIED OUT UNDER THE DIRECTION OF THE GLYNN COUNTY BOARD OF HEALTH IN COOPERATION WITH THE GEORGIA DEPARTMENT OF PUBLIC HEALTH AND THE UNITED STATES PUBLIC HEALTH SERVICE.

M. E. WINCHESTER, M. D. ..... Commissioner of Health
C. M. CARPENTER, M. D. ..... Special Consultant, U. S. Public Health Service

FIG. 2

the statement that low prevalence of venereal disease in his state made this type of education unnecessary. The replies indicated that the present materials were not satisfactory and that improvements and suggestions would be welcomed.

Experience in Glynn County led to the design of a different type of poster. For those interested in this medium, a few principles found successful are outlined. The poster must have some means of getting and holding the attention of the reader sufficiently long to convey the message. Thus, to reach a reading public of limited education, it must be simply worded, brief, and have some striking feature. To come to the attention at the psychologically appropriate moment adds to its value. This fact was early recognized by the "quacks," who selected the public lavatory as a site for dispensing information on "Female Weaknesses" and "Special Diseases of Men."

In our experience, a poster 9 by 12 inches, printed in a boldface type sufficiently large to be read at a distance of from 5 to 8 feet, is a satisfactory size for this purpose. An inexpensive bond paper has proved more suitable than cardboard or metal because of the low cost and ease of posting. Wallpaper paste has been found to be the best method of affixing the poster to the

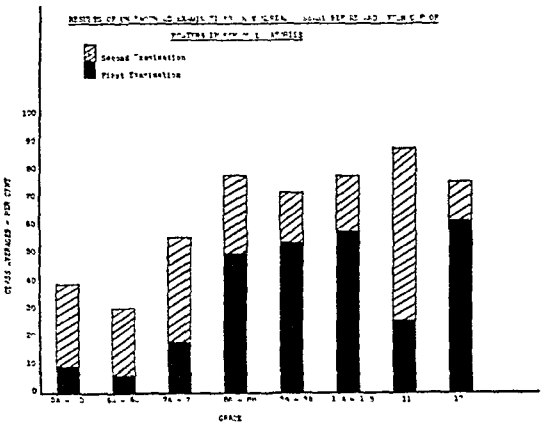


FIG. 3

wall, because the poster may be quickly attached and easily removed with no damage to the wall.

Location of the poster is also of importance. The best sites are over the washbasin, on the back of the door (so when the door is closed the poster will be in front of the toilet), on a partition at the side, or over the urinal.

Most important are content and composition. A conspicuous word or phrase in large boldface type in color will be sufficient to arrest attention and identify the nature of the information. Details should be printed in sufficiently large type to be easily read, but without crowding. General statements should be avoided and as much specific information as possible included.

It is well recognized that all forms of education should be utilized in the control of communicable disease. Because of the nature of venereal disease, however, posters in public lavatories are particularly effective, as evidenced by the success of this method in Glynn County, Georgia. Lavatories in industrial plants and in public places are frequented repeatedly by the young adult group, and particularly men, among whom the incidence of the disease is highest. The privacy of the lavatory permits publication of information that would not be suitable for more public presentation.

The opportunity to disseminate pertinent information by this method should be kept in mind, but, as has been stated, it is essential that improved methods for reaching the groups among whom these diseases prevail should be employed. The possibility of utilizing the public lavatory for the dissemination of information concerning other diseases, particularly gastro-intestinal diseases, must not be overlooked.

Summary

1. Data are presented on the value of posters in public lavatories as an aid in the control of venereal disease. An interview of 604 patients who came voluntarily to the Glynn County Board of Health, Glynn Country, Georgia, for examination for venereal disease disclosed that 461, 76 per cent, were directed to the clinic by posters seen in public lavatories.

2. The value of health committees in Negro churches in carrying out a venereal-disease educational program is discussed.

3. The extent of information on venereal disease among Negro school children is described. A comparison of the results of unannounced written examinations before and after posting venereal disease information in school lavatories showed a marked improvement in knowledge.

4. The results of a survey of the use of venereal-disease posters in public lavatories by state and city health departments are reported.

TABLE 3.—USE OF VENEREAL DISEASE POSTERS IN PUBLIC LAVATORIES BY STATE AND CITY HEALTH DEPARTMENTS

Health Department	Letters to	Replies from	Posters in Lavatories Yes	Posters in Lavatories No	Design Posters	Posters from U.S.-P.H.S.
States	48	45	27	18	12	15
Cities	37	26	14	12	7	7

Discussion

Dr. Theodore Rosenthal,* *New York City*—The authors properly emphasize the importance of education in the control of venereal diseases. Among these needs are:

1. Dissemination of information to groups where the disease is most prevalent.
2. Teaching of venereal disease education in public schools.
3. Evaluation of educational method.

It should be borne in mind that this experiment took place in a rural county in Georgia, with a population of about 20,000, 50 per cent of whom are Negroes. It may be helpful to recall that in the published account of the syphilis prevalence for the first two million selectees, Georgia had a syphilis rate of 133 per thousand; for the white selectees the rate was 39 per thousand and for Negro selectees 327 per thousand.

All of the conventional media for conveying information to the public were utilized. The press, the radio, the spoken word, and group meetings of various sorts, together with posters displayed in prominent places, and later in lavatories in all sorts of public locations.

The utilization of the church by enlisting the aid of the ministers and church leaders was a very wise move.

In considering specifically the role of health education in venereal disease prevention, the question may be raised as to its necessity. Methods of precise

* Director, Bureau of Social Hygiene, New York City Department of Health.

evaluation and statistical yardsticks for health education efforts are not as yet entirely satisfactory Modern public opinion polls however, provide some means of defining and appraising community health education problems Several recent surveys on attitudes and opinions of the public with respect to syphilis and gonorrhea demonstrate a real need for proper information on the subject In addition, venereal disease specialists serving with the armed forces have informed us of the general lack of understanding of many of the basic facts about syphilis and gonorrhea in Army and Navy personnel The rapid reduction in venereal disease rates in military units receiving health education in venereal disease is no longer an isolated phenomenon in the armed forces

It is believed that not enough emphasis has been given in the past to self-control and personal discipline, there are still those who believe that continence is incompatible with good health At this point we can well borrow a phrase from Osler 'Personal purity is the prophylaxis which we as physicians are especially bound to advocate Knowledge is good but wisdom is better

The approach through the schools was courageous and ingenious

The written examination given after indoctrinating the school children is most interesting I should like to ask in what manner children ranging in age from 12 to 18 years were expected to answer question number 3, "How do venereal diseases spread from person to person?' and also question number 4, "How can venereal diseases be prevented?

The principles described for an ideal venereal disease poster are essentially similar to those that have been employed in this area The comments concerning the format and general makeup of a venereal disease poster are excellent Several additional elements might be included

1 A positive statement that venereal diseases are preventable, and avoidable

2 Specific warning to stay away from quacks

3 A statement that promiscuity, or casual sex behavior, is dangerous

To mention specifically a drug, such as sulfathiazole, in a poster designed for the public is not considered in this area to be the best practice It should be sufficient to direct the patient to the physician or clinic, with an added warning that 'Self treatment is dangerous"

In addition to health education conducted in the schools, efforts to control the spread of syphilis and gonorrhea cannot be successful without the help of home and church There would seem to be at least three important ways in which the church can aid (1) Special meetings might be arranged for older boys and girls (2) Church women's groups might consider this as a problem of special importance to parents and others associated with young people in an advisory capacity (3) Some ministers may well feel that this is a subject of such serious moral import that they may wish to speak about it from the pulpit

The vital requirement is to reach as many people as possible, the churches can be of powerful help in this respect, as was so clearly demonstrated during our antidiphtheria campaign of several years ago, as well as in other educational activities Never before have the issues of public health and moral conduct been so clearly and so closely interrelated The increase of venereal disease among young people, some of them mere children, overshadows all other health problems facing us at the present time

I wish to express my appreciation of a most interesting and stimulating presentation, which contains considerable food for thought

Dr Paul B Brooks,** *Albany*—While what I have to say does not relate specifically to control of syphilis it seems an opportune time to put in a word about the general value and importance of public health education I like the term "information" better than "education" People usually are pleased to receive information but not everyone likes the idea of being educated by other people

Whether it has to do with control of a communicable disease or some other matter in which we have to get people to do something in order to secure the results we want, we cannot reasonably expect them to act in the way we want them to unless they have some idea as to the necessity for such action and how it may benefit them as well as other people It is, therefore, an important part of the job of the public health educator, by whatever title, to see that people have the information which may move them to act favorably even if it has to be forced upon them This, in fact, is public health education

I personally feel that public health education—the dissemination of information on public health matters—is one of the most important functions of a health department from the standpoints of getting results I doubt if, even in our own department, we are yet devoting to it the proportion of time, effort, and money which it merits

** Deputy Commissioner of Health New York State Department of Health Albany

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US WILL HELP LIBERIA IN FIVE-YEAR HEALTH WORK

At the request of the Liberian Government, the Public Health Service has announced that it has designated an all-Negro mission of eleven American physicians, engineers entomologists and nurses to develop a five-year health and sanitation program in Liberia

Dr John Baldwin West, head of the mission and senior surgeon in the Public Health Service, Granville W Woodson, sanitary engineer, and John P Davies Jr, maintenance superintendent, are enroute to Liberia

The purpose of the mission according to the Public Health Service, will be to bring under control communicable diseases, principally malaria, by the

TABLE 1.—Effect on Spread of Solution by Changing the Direction of the Bevel (Standard Needle) with (A) Slow and (B) Rapid Rates of Injection

A Rate: 30 seconds/2 cc.						
Direction of Bevel	Caudad		Cephalad		Laterally	
Direction of spread toward	Head	Foot	Head	Foot	Head	Foot
Average spread in cm.	2.7	2.7	2.9	3.0	3.1	3.1
Variation	10 observations		10 observations		10 observations	
	Average difference	0	Average difference	0.1	Average difference	0
	Maximum difference	0.3	Maximum difference	0.2	Maximum difference	0.1
	Minimum difference	0	Minimum difference	0	Minimum difference	0
B Rate: 4 seconds/2 cc.						
Direction of Bevel						
Direction of spread toward	Head	Foot	Head	Foot	Head	Foot
Average spread in cm.	3.7	4.0	3.9	3.7	4.6	4.8
Variation	10 observations		10 observations		10 observations	
	Average difference	0.3	Average difference	0.2	Average difference	0.2
	Maximum difference	0.6	Maximum difference	0.6	Maximum difference	0.9
	Minimum difference	0.1	Minimum difference	0	Minimum difference	0.1

was the lowest thoracic segment and the highest level attained was the tenth thoracic distribution. In contrast in the cephalad group, the average extent was at the fourth thoracic segment and sensory anesthesia of the lower cervical nerves was recorded as the highest reached. In the two groups the average difference in extent of anesthesia was seven dermatomes (Fig. 2A).

Five individuals were given spinal anesthesia on two occasions. Two of them had no operation. For each patient anesthesia was produced with the directional needle-opening facing caudad once and cephalad another time. The results were consistent and in the same individual the difference in extent of anesthesia averaged eight dermatomes (Fig. 2B).

Two patients were submitted to spinal anesthesia three times. The extent of sensory anesthesia was recorded in one at levels of the first lumbar segment when the directional needle-opening faced caudad, at the second thoracic when it faced cephalad, and at the sixth thoracic when a standard spinal anesthesia needle was used (Fig. 2C). For the other, corresponding recordings were at the twelfth thoracic, fourth thoracic, and seventh thoracic segments. The duration of anesthesia for one of these patients was eighty-five minutes when it was at the low level, sixty-five minutes at the highest level, and sixty minutes when the standard needle was employed. The time was determined as from the beginning of anesthesia until none remained.

Discussion

The foregoing data support the contention that the extent of spinal anesthesia may be influenced and more easily controlled by the use of a directional needle. Such a needle may be used successfully for these purposes when a single injection is done or when the continuous spinal technic is employed.

A directional needle may be inserted at other than a right angle and the resulting spread of injected solution will not be significantly different, but with the standard needle the extent of anesthesia is altered considerably by the angle at which the needle is placed when injections are completed.

When anesthesia is confined to lower segments the same amount of drug will provide a longer action than when a more extensive anesthesia has been produced.

The probability of aspirating cauda equina into the needle is diminished with the use of a directional needle since, when facing caudad or cephalad, the opening being in a different plane, it cannot readily come into contact with the nerve roots.

The rare possibility of having part of the bevel piercing the dura so that fluid may be aspirated and part of the beveled opening without the subarachnoid space so that some of the injection may not enter the canal is obviated by a directional needle.

Summary

Laboratory and clinical investigations on the extent of spinal anesthesia when the injected solution is placed cephalad or caudad by a directional needle are presented. The results indicate that seven or eight dermatomes' difference in sensory anesthesia follow when the solution is injected in one or the other direction.

With spinal anesthesia needles now commonly used, the angle of introduction is a factor in determining the extent of anesthesia. With the directional needle the angle is not important.

The position of the bevel of the standard needle used in spinal anesthesia has no influence on the spread of the injected solution.

The directional needle is useful for the more accurate control of the extent of spinal anesthesia.

TABLE 2.—EFFECT OF NEEDLE ANGLE WHEN STANDARD NEEDLE IS USED POINT DIRECTED CAUDAD EACH NUMBER IS THE AVERAGE OF 10 OBSERVATIONS AND REPRESENTS THE SPREAD FROM THE SITE OF INJECTION

Rate	30 seconds/2 cc		4 seconds/2 cc	
Direction of spread toward	Head	Foot	Head	Foot
90° angle	3 3 cm	3 2 cm	5 6 cm	5 5 cm
80° angle	2 8 cm	4 5 cm	5 3 cm	5 4 cm
70° angle	2 3 cm	4 7 cm	4 2 cm	6 0 cm
60° angle	1 9 cm	4 9 cm	3 0 cm	6 3 cm
50° angle	1 7 cm	5 5 cm	3 2 cm	7 4 cm

TABLE 3.—EFFECT OF NEEDLE ANGLE WHEN DIRECTIONAL SPINAL ANESTHESIA NEEDLE IS USED POINT DIRECTED CAUDAD EACH NUMBER IS THE AVERAGE OF 10 OBSERVATIONS AND REPRESENTS THE SPREAD FROM THE SITE OF INJECTION

Rate	30 seconds/2 cc		4 seconds/2 cc	
Direction of spread toward	Head	Foot	Head	Foot
90° angle	3 6 cm	3 3 cm	6 7 cm	6 1 cm
80° angle	3 4 cm	3 4 cm	6 1 cm	6 0 cm
70° angle	3 4 cm	3 5 cm	5 5 cm	6 1 cm
60° angle	3 3 cm	3 5 cm	5 5 cm	5 9 cm
50° angle	3 5 cm	3 5 cm	4 9 cm	5 5 cm.

TABLE 4.—EFFECT OF DIRECTING NEEDLE OPENING IN DIFFERENT DIRECTIONS EACH NUMBER IS THE AVERAGE OF 10 OBSERVATIONS AND REPRESENTS THE SPREAD FROM THE SITE OF INJECTION

Rate	30 seconds/2 cc		4 seconds/2 cc	
Direction of spread toward	Head	Foot	Head	Foot
Cephalad	5 3 cm	1 5 cm	7 7 cm	2 8 cm
Caudad	1 6 cm	6 0 cm	2 9 cm	7 0 cm
Laterally	3 2 cm	3 3 cm	6 7 cm	6 1 cm

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Discussion

Dr Irving M Pallin, *Brooklyn*—There is very little that can be added to the excellent paper just presented by Dr Rovenstine The laboratory and clinical investigations indicate painstaking, careful thought and control, which are exemplified by the choice of patients who were to have repeated spinal analgesias and by those in whom surgery was not performed, thus ruling out many of the uncontrollable variables

It is particularly gratifying to find such emphasis placed on the direction of the needle in relation to the long axis of the vertebral column to control the somatic level and also in many instances the duration of the anesthesia This factor is considered so important as to preclude the consideration of the other factors before the direction of the needle has been ascertained after its insertion in the subarachnoid space Many epidemics of unsatisfactory spinal analgesias administered by our surgical staff have been checked by education concerning the importance of the direction of the needle

The use of the "directional needle' helps to simplify and standardize this technic so that the uncertainty of the direction of the needle requires little consideration This needle permits the positive determination of the direction of the solutions to be injected

In comparing the results of low spinal anesthesia with the standard and directional needles it was found that no definite discrepancy existed when with the former a slow injection of 10 per cent procaine in spinal fluid was injected at the rate of 1 cc per eight seconds in the fourth lumbar interspace with the patient in either lateral, reclining, or sitting position Here, as in the speaker's experience, it was found in a series of 83 cases that the average extent of dermatomes involved was the lowest thoracic segments with the highest to the ninth thoracic Six-hundredths and seven hundredths Gm of procaine so injected has lasted sufficiently to permit surgery of the perineum, vaginoplasties particularly, to continue as long as ninety minutes In none of these cases was surgery terminated in less than thirty minutes from the time of injection Only five such administrations were performed with the "directional needle," with analogous results

This type of needle was used to better advantage in high spinal anesthesias It was found that a higher level could be obtained with a slower injection, less volume, within the safe injectable areas (the second, third, and fourth lumbar) than could be obtained with the standard needle with a perpendicular injection The smaller volume is more desirable in that it has been found that the greater the concentration of the drug in a limited area of the spinal cord, the longer the duration of the anesthesia Formerly the same effect was obtained by either directing the needle cephalad with the long axis of the cord at an angle of 60 or 70 degrees to the skin or by inserting the needle in the lowest thoracic intervertebral spaces The latter is undesirable because of the possible mechanical injury to the spinal cord However, it is felt that one should be cautious when attempting high levels with the "directional needle" because the higher levels are much more readily attained with the latter than with the standard needle One can very easily go beyond the desired somatic level With only the limited experience of seven high spinal anesthesias, it was found that with the rate of injection of 2 seconds per cc the level reached varied from the sixth to the fifth thoracic, even though the patient was kept in the supine position after injection

Considerable difficulty was encountered with the "directional needle" in the continuous spinal technic because the needle would tend to rotate in situ while the patient was being changed from the lateral to the supine position It was rather a visual difficulty to ascertain whether or not the needle had rotated after the patient was in supine position To overcome this difficulty, the rubber tubing was connected after the patient assumed the supine position, but this method was unsatisfactory because of the uncertainty that still existed This obstacle was finally overcome by bending the needle at right

From the Department of Anesthesia the Jewish Hospital of Brooklyn

angles at the skin margin and then fixing the shaft to the skin with adhesive tape. This is a costly procedure, because the needles cannot be straightened perfectly and they were, therefore, discarded. A metal flange or pointer was designed so that it would point in the direction of the needle opening and would be attached to the side of the hub. This indicator should show clearly the direction of the aperture in the needle any time during the surgical procedure. Unfortunately, because of present conditions, this needle is still untouched on the instrument-maker's work bench.

The "directional needle" was found to be particularly useful in hemispinal anesthesias. The method previously used was cumbersome and difficult. An attempt was made to point the needle toward the side to be anesthetized by inserting the needle 2 cm. lateral to and beyond the midline of the spinous processes at the interspace selected. The solution was then injected very slowly at about 1 cc. per eight to ten seconds. The "directional needle" has permitted the use of the standard technic of lumbar puncture followed by directing the needle aperture to the side to be anesthetized. A slow rate of injection is still maintained. It has been found that in fourteen nephrectomies, using 14–16 cc. of nupercaine in 1:1,500 solution with the patient in the lateral position and the diseased side uppermost that the hemispinal anesthesia was satisfactory in all cases except for some little hypalgesia of the dependent side. The advantage of this type of anesthesia is twofold—a minimal initial drop in blood pressure and the long duration of the anesthetic without deleterious effects. The average drop in systolic pressure in these cases was 14 mm. of mercury, with a maximum of 20. The longest operation required one hundred and thirty minutes for completion, with adequate anesthesia throughout. In one case there was a drop of 60 mm. of mercury in systolic pressure with a corresponding drop in diastolic pressure, but this occurred forty minutes after the operation was begun and was attributed to hemorrhage. The technic of hemispinal anesthesia was reversed when a hyperbaric solution was used on a patient scheduled for a leg amputation. Here, however, the lateral position was maintained for ten minutes to permit fixation of the anesthetic agent before assuming the supine position.

Some minor difficulties were encountered with the "directional needle." It is felt that the needle is not as sharp as the standard needle, and on three occasions it was discarded because the dura could not be pierced after several repeated attempts. In every case there is a distinct accentuation of the sudden release of resistance that is encountered when the dura is penetrated.

Although there is generally a good flow of spinal fluid, in one case it was necessary to rotate the needle several times before a good flow was established. The final direction of the opening was not the one desired. Theoretically, the cauda equina cannot obstruct the opening when it is directed cephalad or caudad, but it is not beyond the realm of possibility that the posterior dura can overlap the presenting needle and its opening.

It is felt that the directional needle is a welcome addition to the armamentarium of the anesthetist and should become a distinct aid in controlling the level of spinal anesthesia.

"TOPICS OF *THE TIMES*"

Viewed with Alarm. There is no end to the number of normal people who are abnormal. They are even more numerous than the average citizens who are way below the average. This time it is 2,000 Waves in training at Hunter College. Only 15 per cent of them have normal feet, according to the official podiatrists.

It is one more item in the startling logical discoveries which war always seems to bring forth. We all remember the famous Army Intelligence Tests of the last war which were popularly interpreted to mean that the average man's mental powers are far below the average. So, in greater or less degree, we read today of abnormally high ratios of physical disability among men called up for war service, exceptionally high ratios of dental ailments, alarming ratios of mental deficiency, like those against which the Christian Century protests when it accuses the Army psychiatrists of exaggerating the nation's mental ills.

Normal or Ideal? To be sure, it does not sound quite so paradoxical to say that six women in seven have abnormal feet as it does to say that in the matter of healthy feet six women out of seven are below the average. Normal feet, like normal brains or normal eyesight, mean, or should mean, a standard which is independent of statistics. The eye doctor has in mind a "normal" vision. It is not his fault if the first hundred people he examines are "abnormal." A podiatrist has a very clear idea of what a normal foot—meaning a perfectly healthy foot—should be, and it isn't his fault if six women in every seven fail to meet the requirements.

What the experts really have in mind is not the normal but the ideal—and it is much to their credit that they should set their sights so high. Just the same they manage too often to make people forget that they are speaking of an ideal. They succeed in conveying the rather odd notion that most people are abnormal in the sense in which we think of mental abnormality, that is to say, below the average. And thus it happens that the average man's mind is weaker than his own mind, his feet are in much poorer condition than his own feet, his teeth much more neglected than his own teeth.

There ought to be a law. It should be made obligatory on everybody who finds alarming conditions prevailing among the American people to state what his standards are.—*New York Times, July 27, 1944. Reprinted with permission.*

SUBTOTAL GASTRECTOMY IN MEDICALLY RESISTANT ULCERS

J. William Hinton, M.D., New York City

FEW medical programs are complete without a discussion of the ulcer problem, and one might ask why so much emphasis is placed on gastric and duodenal ulcers when they play such a minor role as cause of death compared with diseases of the heart. The U.S. Bureau of the Census reported for 1942 a total of 395,000 deaths from heart disease, or 295 per 100,000; 6,387 deaths from gastric ulcer, or 4.8 per 100,000; and 2,872 from duodenal ulcer, or 2.1 per 100,000. These statistics suggest an interesting discussion regarding the advisability of early surgery for gastric ulcers.

During the past four decades the belief has grown and has become generally accepted that a definite relationship exists between gastric ulcer and gastric carcinoma. As a result, many if not most gastric ulcers are being referred for early radical surgery.

From a previous report[1] of the Fourth Division at Bellevue Hospital we found in 1,256 ulcers that 89 per cent were duodenal. If there were only 2,872 deaths from duodenal ulcer in 1942 as compared with 6,387 deaths from gastric ulcer when the latter do not constitute over 15 per cent of the total number of ulcers, it makes one question the advisability of such early operations. If carcinomatous changes had already developed in these cases, they would have been included under deaths from carcinoma and not from ulcer.

One has only to read Fogelson's[2] review of the literature pertaining to gastric and duodenal ulcer for the years 1934–1936, inclusive, to realize the state of confusion that exists as to the handling of the ulcer patient. At that time Fogelson found that over 1,000 papers a year are written on gastric and duodenal ulcers. Much that is written lacks practical application, as the life cycle of the ulcer has not been followed for a sufficient length of time to draw any conclusions. Spontaneous remissions last for several months and sometimes for one or two years. Therefore, any report of cures is misleading except in the case of a five-year period of observation.

On several occasions[3–6] we have reviewed the cases in the ulcer clinic of the Fourth Medical and Surgical Divisions of Bellevue Hospital and have given our indications for conservative and operative treatment for both gastric and duodenal ulcers.

After more than fifteen years' experience in this clinic we are more than ever convinced that if there is a dictum for the treatment of ulcers it should be: more mistakes are made by too early rather than by too late surgery.

During the years 1942 and 1943 I operated upon 44 patients at Bellevue Hospital and 41 patients at Post-Graduate and other hospitals. As the same indications have been used for all these patients, it would seem worth while at this time to discuss the operative pathology in the medically resistant patient and the rationale of subtotal gastrectomy for this type of ulcer.

Of the 85 patients 19, or 22 per cent, were suffering from gastric ulcer and 66, or 78 per cent, from duodenal ulcer. This is consistent with the review of the cases at Bellevue Hospital for the period of 1928–1942[1] at which time we found that of the total number of cases in our clinic, 89 per cent were duodenal lesions and 11 per cent gastric, while of those referred for operation 73 per cent were duodenal and 27 per cent were gastric. The higher percentage of patients with gastric ulcers admitted to the hospital is due to the fear that the gastric lesion may be carcinoma. There were three deaths, or a mortality of 3.5 per cent.

The good end results of surgery in both gastric and duodenal ulcers depend chiefly upon thorough medical management by a physician with the background to understand the ulcer patient. If the surgeon would take only those patients whom the internist cannot relieve by dietary measures, the results from surgery would be most gratifying.

Indications for Surgery

The one real indication for surgical intervention is *uncontrollable pain.* There are other indications which are frequently used and will be discussed, namely, pyloric stenosis, recurrent hemorrhage, penetrating ulcers, and lack of cooperation on the part of the patient under medical management.

Pyloric obstruction is still referred to in the literature as a true indication for surgical intervention. The stenosing and obstructing ulcer has recently been reviewed by Allen,[7] who states that the stenosing lesion "finally becomes a mechanical problem and the patient seeks help because he can no longer absorb nourishment to maintain life. The onset of such a condition is a gradual one, and the end-stage is reached so insidiously that one often finds that the stomach has become enormously dilated. It is interesting that such an organ, emptying infinitesimal

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amounts of its contents into the duodenum, can exist within a person and create so little distress." In the two clinics with which I am associated, it has been our experience that a stenosing or obstructing ulcer not accompanied by pain does not require surgical intervention. These patients can be relieved by medical management, and obstruction does not occur provided they remain free from pain.

Wilkinson[8] emphasizes that an obstruction of three months' duration or less will respond satisfactorily to medical management but in the case of an obstruction which has lasted three months or longer, recurrences are almost certain and operation is usually indicated. He does not mention pain as a factor in causing the obstruction. In our experience, obstruction without pain is due to edema and pylorospasm and not to scar tissue around the pylorus. Since 1932 no patient with so-called pyloric obstruction unaccompanied by severe pain has been referred for surgical intervention, either in private consultation or in the clinics.

Two exceptions to the above statement occurred in 1930 and 1931, when simple closure was done for perforated duodenal ulcers, nine months after operation in one case, and two years afterwards in another; a true organic obstruction developed from the operative procedure, necessitating a short-circuiting operation. Neither of these patients was suffering from pain.

Massive hemorrhage, occurring once or oftener as an indication for surgery is a controversial question. First of all, we do not have a clear-cut line between what constitutes massive and moderate hemorrhage, and a study of the literature reveals the elasticity in the grouping of these cases. However, if we all agree that a red-blood-cell count of 2,000,000 or less, a hemoglobin count of less than 40 per cent, and lowered blood pressure with a moderate degree of shock, constitute massive hemorrhage, then we are obviously agreed that the patient has suffered a great loss of blood.

Surgical management of these patients may be considered under two headings; surgical intervention in the stage of acute hemorrhage, which is occasionally indicated, and second, surgery as an elective procedure to prevent further hemorrhage. My views regarding the first-mentioned type of management have been expressed in previous publications.[9,10] The indications for surgery as an elective procedure are interpreted differently in different hospitals. The point emphasized by Allen[7] as to the dangers of massive hemorrhage in the different age-groups has been fairly universally accepted. That is, in a patient over 45 years of age, the prognosis is serious, while in a patient under 45, massive hemorrhage rarely proves fatal. Blackford and Cole[11] have confirmed this observation. Blackford and Allen,[12] in a report of 151 fatal hemorrhages, record that in only 35 cases, or 23 per cent, was there a history of previous hemorrhage, or, in other words, 77 per cent of the fatalities occurred following the first hemorrhage—an interesting observation, with definite clinical significance. These authors also observed that 34, or 23 per cent of the deaths, occurred at home. In a hospital with an active ambulance service the type of case is different from those in the average hospital. The report of Blackford and Allen[12] indicates that, not infrequently, patients die at home before ever reaching a hospital. They state that fatalities in patients under 45 are rare whether or not patients receive treatment, and that in patients under 40, fatalities are almost unknown. On this point we must disagree. Since 1937, on the Fourth Division at Bellevue Hospital, I have had occasion to operate upon three patients who were medical failures, having had chronic ulcers for periods averaging from five to fifteen years. These patients were suffering from intractable pain and were being prepared for operation on the surgical wards, when they had massive hemorrhages. Amazingly enough, all of them occurred within twenty-four to forty-eight hours of the day set for the elective operation. This group of cases included two duodenal ulcers perforating into the pancreas, and one gastrojejunal ulcer eroding into the transverse mesocolon and the pancreas. All three patients were saved by operative intervention. Massive blood transfusions were given before, during, and after operation, and a subtotal resection was performed in each case. The patients were 27, 37, and 42 years old, respectively. Two other patients with whom we had had no previous contact were admitted as emergencies. One of them, 44 years of age, had a duodenal ulcer and the other, 33 years old, had a gastric ulcer. A subtotal resection was performed in each instance. The former patient died, the latter lived. There has been one other case in our division, a gastric lesion that resulted fatally while the author was out of town, but this case was proved by autopsy to be not an ulcer but a small ulcerating carcinoma.

From 1928 to 1937 we encountered an average of thirteen massive hemorrhages a year at Bellevue Hospital, according to the definition of massive hemorrhage as previously described, and there was a medical mortality of 10 per cent. During the years 1937–1943, inclusive, I had occasion to operate upon 14 patients suffering from massive hemorrhage which could not be controlled by repeated transfusions. These patients as a group received anywhere from 2,500 to 8,500 cc. of blood, but instead of improving, they

became worse, and it was necessary to resort to surgery in order to save their lives. In this group we lost but five cases of massive hemorrhage, after surgical intervention.

The management of the patient who has had a massive hemorrhage, or even two or occasionally three massive hemorrhages will depend not so much upon the fact that he has had one or even three massive hemorrhages as upon the x-ray findings and his clinical history. From my experience, the patient with a massive hemorrhage who is not suffering pain of the chronic intractable ulcer seldom, if ever, requires operative intervention. In 1943 a physician, who is now 59 years of age, suffered a massive hemorrhage from a duodenal ulcer. Seventeen years previously he had had a massive hemorrhage and had been asymptomatic during the period between the two hemorrhages. He was advised by his physician that an operation was indicated. The x-rays revealed a duodenal ulcer *without crater, and I strongly* urged this patient not to be operated upon. It has now been nearly a year since his second hemorrhage and he is asymptomatic and doing his normal work.

If the patient is suffering severe pain associated with massive hemorrhage, then the indications are present for operative intervention. The hemorrhage is merely another argument that his condition has progressed to such a degree that he will obtain no further benefit from conservative measures and may possibly endanger his life by a sudden hemorrhage from erosion through the superior pancreaticoduodenal artery.

The *penetrating* or *perforating duodenal ulcer*, as diagnosed roentgenologically, does not necessarily constitute a true indication for surgical intervention. Here, again, we must rely on the clinical evaluation of the symptomatology. If the patient has had an ulcer for years, with intractable pain, then the indications are obvious, but if he has had an ulcer for only a short period of time, and it proves to be a penetrating ulcer, medical management will very frequently relieve the symptoms and the niches will disappear.

The following case was referred to me for operation. The patient was a young man, 24 years of age, with a history of ulcer of two months' duration. Roentgenograms had revealed a penetrating posterior duodenal ulcer and the internist and the roentgenologist had both advised operation. After seeing the patient in the hospital I advised against operation and recommended medical management. After three weeks on the surgical ward the niche disappeared, the symptoms were relieved, and the patient has remained well for three years. The indication, therefore, for surgical intervention in the penetrating ulcer can be decided only by the clinical course, and not by the roentgenologic appearance of the lesion.

Patients who will not cooperate under medical management should not be operated upon. If the surgeon accepts this type of patient for operation the results from any surgical procedure, whether it be a gastroenterostomy or a subtotal resection, will be most unsatisfactory.

I feel rather strongly about the elasticity of these indications for surgical intervention because in a high percentage of the patients on whom I have had the opportunity to operate during the past fifteen years, I have frequently done the third, fourth, fifth, and in one case the sixth stomach operation. I have questioned the indications for the primary procedures after evaluating the patient's history.

Of the 85 patients upon whom I have operated during the past two years, 19, or 22 per cent, had been previously operated upon and were surgical failures, because of either the poor selection of the site of anastomosis between the small intestine and the stomach, or the development of a gastrojejunal ulcer following gastroenterostomy. Of these nineteen surgical failures, three were due to a malplaced anastomosis. In two of these cases, the anastomosis had been made between the terminal ileum and the stomach in each instance, 4 to 5 feet from the ileocecal valve, and the patients were suffering from malnutrition. In the other case the colon had been anastomosed to the stomach, and, as the surgeon thought he had done an anterior gastroenterostomy, he completed the procedure by anastomosing the colon to the jejunum. This patient went for several months following this operation before diarrhea developed. Interestingly enough, closure had been done two years previously for a perforated ulcer, and the patient had only some minor complaints. He was told that he could be made perfectly well by an operation. Fortunately, he was made well but it took a second operation to accomplish it. Therefore, we cannot let such instances go uncommented upon as a cause of failure in surgically treated patients.

Three of these nineteen surgical failures were caused by the continous pain following gastroenterostomy from the original ulcer, and thirteen were caused by the development of gastrojejunal ulcers subsequent to gastroenterostomy. Nine of these gastrojejunal ulcers occurred within six months to ten years following gastroenterostomy for chronic duodenal ulcer, and four developed following closure and gastroenterostomy for acute perforated ulcer. Gastrojejunal ulcers are more likely to develop after gastroenterostomy for acute perforated ulcer than for chronic ulcer.

The question always arises as to why gastro-

jejunal ulcers develop. It would seem there are two answers to this question. One is that if the anastomosis between the stomach and the jejunum is placed some distance from the ligament of Treitz, that is, 10 to 12 inches and even further, the patient is more likely to develop a gastrojejunal ulcer. It might appear to the operator that the anastomosis was not done so far distally, but during the course of secondary gastric surgery such malplaced stoma are seen. Second, and perhaps more important, is the fact that gastroenterostomy for chronic adherent duodenal ulcer will seldom, if ever, give any lasting relief, since a short-circuiting procedure has been carried out on a complicated ulcer. It is for this type of lesion that we find it necessary to do a subtotal resection.

Technic of Operation

Considerable confusion exists as to what is implied by subtotal resection. It is difficult to ascertain whether the surgeon is referring to subtotal resection of the stomach, leaving the ulcer *in situ*, or subtotal resection of the stomach, removing the ulcer *in toto*. A high percentage of surgeons do not remove the adherent duodenal ulcer, but only the stomach, and consider the result from this procedure as satisfactory as from removal of the ulcer. From my observation, I believe it is necessary to remove the ulcer, and this can always be done if the surgeon has had a reasonable amount of experience and is careful in his dissection.

If we accept the concept that achlorhydria is the goal in subtotal resection, then there is a definite reason, in all instances, for removing the pylorus and the adherent ulcer. Edkins[13] and Koch, Luckhardt, and Keston[14] have shown experimentally that the hormone "gastrin" is produced and thrown into the blood stream by the pyloric mucosa and effects the secretion from the cardia and fundus of the stomach. Because of the similar action of histamine upon the gastric mucosa, several authors believe this hormone to be histamine. However, recent work on isolated and denervated gastric pouches with histamine-free extracts has demonstrated the true hormone character of the internal secretion of the gastric mucosa.[15]

Results

There is little doubt that in those cases in which a subtotal resection of 60 to 75 per cent of the stomach is done and the duodenal ulcer is left *in situ*, the follow-up results are far from satisfactory. This point has been stressed by Friedell, Shaar, and Walters.[16] They state that "while the prognosis as to ultimate cure and certainly as to the immediate relief is favorable, it surely does not present the same chance of a complete cure that pyloric removal does," and they cite a case in which the pyloric portion of the stomach and the duodenal region were not removed, but the gastric mucosa was dissected from the remaining pyloric stump. Analysis of the gastric contents three weeks after operation revealed 10 to 15 units of free hydrochloric acid in the gastric section which increased to 60 units after the administration of 0.5 mg. of histamine. They believe that neglect to remove the pyloric portion of the stomach was a factor in the failure.

Kiefer[17] has elaborated upon this point in reporting 222 subtotal resections for peptic ulcer. He emphasizes that 49 were for gastric lesion and 173 for duodenal ulcer. "In 30 cases, because of technical difficulties and their attendant risks, the duodenum and pylorus were not included in the resection, the distal transection being placed proximal to the pylorus, as recommended by Finisterer in cases in which removal of the duodenum is too dangerous. In this group there were seven recurrent ulcers and three cases of postoperative hemorrhage. This relatively high incidence of unsatisfactory results has led to speculation regarding the role of the pylorus and the antrum, since there is evidence that a hormone is evolved in the pars pylorica which stimulates the fundic glands to produce acid. However, actual evidence indicating that failure to remove the pyloric end of the stomach was solely responsible for the recurrence of the ulcer is rather meager. A postoperative gastric analysis after an Ewald meal was done in 24 cases of this group with the finding of free acid in 13 cases, which is approximately the same proportion as that found in the combined group of duodenal ulcer cases. The fact that the surgeon had decided against the attempt to remove the pylorus was an indication that this group represented a particularly severe grade of peptic ulcer and might be expected to show a higher percentage of recurrence."

Whether or not a hormone is secreted by the pyloric end of the stomach, there seems to be little doubt, in some of the clinics with large experience in subtotal resections, that in those cases in which the duodenal ulcer is left *in situ* the results are not as satisfactory as when it is removed. The two previous reports differ in their interpretation. One states that the unsatisfactory result is due to increased acid; the other that it is due to a more virulent type of ulcerative process. If the latter opinion is correct, then there is every reason for removing such a lesion.

Summary and Conclusions

From my observation in the ulcer clinics of the Fourth Division of Bellevue Hospital and of Post-Graduate Hospital I believe that 90 per

cent of ulcer patients whose ulcer is diagnosed reasonably early in its course, that is, within the first year of onset of symptoms, can be satisfactorily managed on a medical regimen if the patients can be persuaded to cooperate The 10 per cent who fail under medical management will require a radical surgical procedure, as these patients do not submit to surgery for simple uncomplicated ulcer but for an ulcer which has penetrated through the entire wall of the duodenum and the floor of which has been formed by the head of the pancreas or the duodenohepatic ligament Of the forty-seven primary duodenal ulcers for which I have operated during the past two years, forty-two were situated at the posterior wall of the duodenum. If you visualize the dial of a clock, 3 o'clock would represent a completely posterior ulcer, and anywhere between 12 and 6 a partial posterior ulcer In only five instances was the ulcer anterior, or between 6 and 12

In evaluating the operations for ulcer which I have performed during the past two years, it would seem to me that even at the present time too many patients are being advised to have an operation and too few are being managed on a medical regimen. When the patient is suffering persistent pain which sedation does not relieve, it is then apparent that medical management will not afford relief and the patient should be promptly referred for surgery.

There is only one satisfactory surgical procedure for the medically resistant ulcer and that is subtotal resection with removal of the ulcer *in toto*

Gastroenterostomy is doomed to failure in these cases as the patient has been referred not for the ulcer per se but for the complication which has resulted from the long-existing ulcer and which, in most instances, is a chronic pancreatitis.

Even at the present time considerable secondary gastric surgery is being done on patients in whom the indication for primary operation was questionable Premature operations are apt to result in failures in a high percentage of cases

The malplaced anastomosis is still an important cause of operative failure in a high percentage of operations for gastric or duodenal ulcers

130 East 79th Street
New York City

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HARSH MEDICAL TERM

New York's Selective Service Director says he knows scores of cases where men earning $5,000 to $[illegible] a year ... why ... undertake ... vice on that ground These men are neither mentally defective nor insane

... ble words for a comparatively innocent ailment, in the first place?

The man in the street or at the boss's desk does not have in mind the many gradations from mere excitability and emotional maladjustment through the neuroses and the psychoses into acute mental disease Any diagnosis with "psych..." ... o know had by way of countless sensational murder trials where the defense has been insanity. This has been supplemented by the newer popularization of psychiatry in all fields But as a matter of fact the new terminology only makes things harder Once upon a time you could call a man a crank or an old grouch or an absent-minded professor without further serious connotations But in an age that has discovered neuropsychiatry the old crab in the boss's office or the lady with the artistic temperam... innocent and even pleasant word as a substitute for psychoneurosis Our advertising profession is a perfect marvel at such soothing euphemisms A man discharged from military service on the ground, let us say, of "civilian orientation" would stand a much better chance of getting back his old job than if you call him a psychoneurotic In fact his civilian employer might be positively eager to hire back a man civilianly oriented —*Topics of the Times, New York Times, Aug 30, 1944*

Fortunately, it is not necessary to do Rh tests before every transfusion; in fact, such a procedure would serve only to unnecessarily delay the great majority of transfusions. For clinical purposes, cases requiring blood transfusions can be divided into three classes:

1. Patients who have never been exposed to antigen.—This group includes patients who have never had a previous transfusion or pregnancy. In such cases the Rh factor may be disregarded, for, as far as is known, barring one rather unconvincing case report, natural sensitivity to the Rh factor does not occur. For example, the Rh factor may be disregarded when transfusing wounded soldiers or sailors who have not had previous transfusions. In the case of women in the child-bearing age, there is some objection to disregarding the Rh factor; should the woman be Rh-negative and among the 2 per cent capable of being sensitized, a transfusion of Rh-positive blood could serve to sensitize her so that a subsequent pregnancy might result in an infant with hemolytic disease.

2. Patients who have been exposed to the Rh antigen but without clinical evidence of sensitization.—This group includes patients receiving blood transfusions but without untoward reaction, and patients who have been pregnant but have borne only normal children. Such patients, if Rh-negative, presumably are of the common variety that is not readily sensitized, so that presumably they could safely have transfusions of Rh-positive blood. However, since the possibility exists that sensitivity may actually be present but of too mild a degree to cause a transfusion reaction or obvious signs of hemolytic disease in the infant, and inasmuch as such sensitivities tend to increase in degree with each succeeding exposure to the Rh antigen, the best policy in these cases is to test the patient for the Rh factor whenever time permits. In urgent cases, when there is not enough time for such tests, Rh-negative blood of a compatible group should be used, and the patient should be Rh-tested in the interim to prepare for future transfusions, should any be required. If only Rh-positive blood is at hand, a biologic test with 50 cc. of the blood should be done, and if the test is negative, as will almost invariably be the case, any quantity of the same blood can be given safely. The interval of an hour, while waiting for the result of the biologic test, can be used for a plasma transfusion, if the need is great enough.

3. Patients who have been exposed to the Rh antigen with clinical signs suggestive of sensitization.—This group includes patients who have had reactions to previous transfusion, or have given birth to an infant with hemolytic disease, or have had unexplained stillbirths. These cases constitute absolute indications for the use of Rh-negative blood, unless, by careful serologic tests and biologic tests, the existence of sensitivity to the Rh factor can be excluded. Of course, the transfusion reactions may have been caused by pyrogens rather than by intragroup hemolysis, but it is essential to prove that this is the case by Rh-testing the patients and donors. If Rh-negative donors are not at hand, the hazard would be less in these cases if reliance is placed on plasma transfusions until proper tests can be done, and donors that are certainly compatible can be found, rather than chance a blood transfusion from a donor of unknown Rh type.

Hemolytic disease of the fetus and newborn is a peculiar disease in that frequently the infant appears perfectly normal at birth; yet soon thereafter hemolysis of its red cells takes place. If the hemolysis is gradual, as is often the case, the patient merely develops a pallor because of the development of a hemolytic anemia. This may be overlooked until the infant is five to ten days old and the anemia is of such severity—e. g., as low as 20 per cent hemoglobin—that the infant is moribund and it is too late to do anything for him. In milder examples of the disease, no anemia may develop or the anemia may be so slight that recovery occurs spontaneously. At any rate, this manifestation of the disease is amenable to treatment, so that all infants should recover under proper modern transfusion therapy.

In more severe cases, hemolysis is more abrupt, and obvious jaundice results because of the inability of the body to eliminate the products of hemolysis at a sufficiently rapid rate. The jaundice conceals a severe anemia; the hemoglobin may drop as low as 40 or even 20 per cent during the first twenty-four to forty-eight hours of life. Almost all of these infants can also be saved, provided the physician is alert and transfusion therapy is instituted without delay.

Transfusion therapy serves merely to replace the hemolyzed blood and has proved of no value in the speaker's hands for combating other manifestations of the disease. For example, in some cases with little or no anemia, the patients develop a hemorrhagic tendency and die from hemorrhages into the brain and lungs. In still other cases in which there is little or no anemia, the jaundice, which need not be marked, instead of clearing, persists and the patient develops a kernicterus. Usually such infants die, and this would be best in all cases showing this manifestation, because the infants that recover are apt to develop into mentally deficient individuals.

Finally, of course, must be mentioned the cases in which intrauterine hemolysis occurs with resulting death in utero. The infants in such

instances are stillborn, either hydropic, jaundiced, or without obvious evidence of disease.

In the infant with hemolytic disease the paradoxic situation exists of an antigen being present in the body simultaneously with its specific antibody. Almost invariably the infant is Rh-positive, yet he has in his body anti-Rh isoantibodies derived from his sensitized mother through the placenta. For some reason, in most cases the antibodies are prevented from acting until after birth. This has been explained by assuming that the antibodies are stored in the infant's tissues, from which they are released after birth. More recent studies by the speaker indicate that the special nature of the antibody may be the explanation. The anti-Rh agglutinins used for the in vitro tests are probably not responsible for the hemolysis, because these are often not demonstrable in severe instances of the disease, while cases have been reported in which the maternal serum contained high-titered anti-Rh isoagglutinins, yet the infant was apparently normal. The newly described "blocking antibodies" are also frequently absent, as well as the agglutinins in severe instances of the disease. In all cases, however, the mother gives a positive biologic reaction upon the injection of small amounts of Rh-positive blood, indicating the existence of still a third or even more varieties of anti-Rh isoantibody, one of which is probably responsible for the hemolysis of the infant's red cells.

For the transfusions, the maternal whole blood is not suitable because it contains anti-Rh isoantibodies, and transfusions of her blood, unless the plasma is removed, would tend to aggravate the disease. Transfusion of paternal blood or any Rh-positive blood would also merely add fuel to the fire, since the infant's body often contains enough antibodies not only to hemolyze all the infant's own blood but also additional Rh-positive blood that may be introduced by transfusion. The ideal blood to transfuse is Rh-negative blood of the infant's blood group, or better, Rh-negative blood of a group compatible with the mother's serum. In emergencies, group O Rh-negative blood may be used; or, if an Rh-negative donor is not available but a centrifuge is at hand, blood can be drawn from the mother, the red cells washed twice with saline solution, and the cells transfused after resuspending them in saline solution or compatible plasma. This is not as difficult a procedure as it sounds, because the baby only requires small amounts of blood, and the washing of the mother's cells can be carried out in ordinary culture tubes.

Naturally, the blood must be given by the intravenous route; intramuscular, subcutaneous, and intraperitoneal injections are useless. I have never used the longitudinal sinus for a blood transfusion. This, in my opinion, subjects the infant to an unnecessary hazard. When the scalp veins are well developed, citrated blood can easily be transfused into them by syringe with the aid of a 22-gage needle and two-way stopcock. Scalp veins failing, a small incision into the antecubital fossa, or better, anterior and superior to the medial malleolus at the ankle, will always yield a suitable vein. The amount of blood given at one time is usually approximately 10 cc. per pound body weight, although in patients with extreme anemia larger doses may be given. I usually give two transfusions of 75 cc. each, and when we consider that in most newborn infants the total blood volume is about 250 cc., this is sufficient to maintain the hemoglobin at 60 per cent even when all the infant's own cells have been hemolyzed. In the usual case, the infant survives for a time with only the donor's cells in its circulation, but eventually these are replaced by the infant's own cells as they wear out, so that by the time the infant is two or three months old it has fully recovered. If the regeneration of the infant's blood does not keep pace with the elimination of the donor's cells, a third and sometimes a fourth transfusion may be required when the infant is two to four weeks old. In mild cases, on the other hand, a single transfusion may suffice or recovery may occur without any treatment at all.

As part of the treatment, infants with hemolytic disease are not permitted to nurse because anti-Rh isoantibodies have been detected in the colostrum and milk of their mothers. To date, in my personal experience, the lives of twelve infants have been saved by transfusions of Rh-negative blood or washed maternal cells. Subsequent examinations have shown all these infants to be perfectly normal, both clinically and hematologically.

DR. CARL H. SMITH: The subject for discussion can be divided into two phases, namely, the Rh factor in relation to erythroblastosis fetalis and to transfusion.

Erythroblastosis fetalis presents many clinical features, the greater number of which can now be interpreted in terms of the concept of intrauterine isoimmunization. A change in terminology from erythroblastosis fetalis to hemolytic anemia of the fetus and newborn seems justified at this time, and has the advantage of stressing the underlying mechanism. This designation would also include the milder types which are associated with minimal anemia, jaundice, and erythroblastemia, which are noted more frequently because of greater interest in erythroblastosis. The term "congenital anemia of the newborn," heretofore applied in connection with the less severe types

of this disease, would no longer be necessary. It is interesting to note that in this more favorable form of erythroblastosis, the anemia is not noted at birth but becomes manifest during the first week of life. If the maternal anti-Rh agglutinins were present at birth, it is hard to understand why hemolysis should be postponed until the third or fourth day of life. It is possible, of course, that the agglutinins were stored in the fetus and for some reason remained inactive until after delivery. In this case, as Dr. Wiener mentioned, there is the curious circumstance of the simultaneous presence of an antigen and its specific antibody.

Another clinical feature which is difficult to correlate with the isoimmunization theory is the fact that repeated transfusions with Rh-negative blood are occasionally required to maintain adequate blood levels in infants showing manifest erythroblastosis fetalis from birth. Since the infant's cells are Rh-positive, it may be assumed that either in utero or soon after birth a sufficient number of red cells have been destroyed to have produced the anemia and to have exhausted the supply of anti-Rh agglutinins in the process. The persistence of the anemia even for shorter periods than were observed in the days when Rh-positive blood was used and the increasing jaundice are still difficult to interpret except on the basis of the continuous action of maternal anti-Rh agglutinins.

On the other hand, the destruction of fetal red cells by anti-Rh agglutinins elaborated by the mother explains many clinical and hematologic features that were formerly puzzling. Cases of icterus gravis had been encountered in the past in which the anemia and jaundice persisted over such long periods, despite repeated transfusions, that this diagnosis was ultimately questioned and the possibility of an unsuspected blood dyscrasia or some type of obstructive jaundice was considered. In those instances undoubtedly anti-Rh agglutinins continued to hemolyze the infant's red cells, and when susceptible Rh-positive cells were introduced by transfusion, not only was the anemia unimproved, but the jaundice became more intense. The use of Rh-negative blood of the infant's blood group should obviate this difficulty in the future.

While the amount of blood currently administered is approximately 20 cc. per Kg., there is no set rule regarding the frequency of transfusions. Experience has shown that it is unnecessary to maintain the maximum levels of hemoglobin and red cells that characterize the early newborn period. In fact, the administration of excessive amounts of blood in order to keep up these high values may lead to increased hemolysis, especially when Rh-positive blood is used. As pointed out by Potter, the resulting bilirubinemia may actually contribute to kernicterus. In deciding the need for repeating transfusions after the emergency period, the hemoglobin value of the healthy full-term infant may serve as a useful guide. Following the neonatal drop, the hemoglobin in the first two years of life normally ranges from approximately 10 to 12 Gm. per 100 cc. of blood. It may be advisable, therefore, following the initial transfusions, to attempt to maintain a hemoglobin level of 12 Gm. per 100 cc. of blood, which represents the higher value for the thriving full-term infant.

There may be other elements in the blood picture besides the hemoglobin and red count which have to be considered. In an analysis of cases from the pediatric service of this hospital to be published shortly, Dr. Martha Leonard found evidence in favor of vitamin K deficiency as being one of the major causes, although not necessarily the only one, of hemorrhagic manifestations in patients with erythroblastosis. Every infant with erythroblastosis should, therefore, be regarded as an individual problem and in addition to correction of the anemia, appropriate therapeutic measures should be administered to combat particular symptoms.

The advisability of premature delivery to shorten the exposure of the susceptible fetus to destructive antibodies has been suggested in treatment. Potter does not believe that this procedure can be carried out sufficiently early for the infant to escape erythroblastosis. The result might be that the infant already afflicted with erythroblastosis would be subjected to the hazards of prematurity.

Obviously, the ideal method of preventing fetal erythroblastosis should be directed towards removal of the anti-Rh antibodies from the mother's blood during pregnancy. Recently, Broman experimented with the injection of blood from the Rh-positive father but with unsuccessful results. I would like Dr. Wiener to discuss this very important phase of erythroblastosis, since he has already prepared red-cell stromata for treating sensitized Rh-negative individuals.

DR. WIENER: The problem of prevention of erythroblastosis is indeed a vexing one, and we haven't a satisfactory solution yet.

First, with regard to the possibility of desensitizing by injecting Rh hapten, injecting small amounts of whole blood, 5 cc. at a time, would hardly suffice to desensitize the patient. Instead, it might make her more sensitive.

To desensitize you have to inject massive amounts in order to exhaust the antibody-producing mechanism. According to estimations based on our experiments with red-cell stromata, the amount of Rh antigen per red cell is very mi-

nute indeed. I would estimate it at $^1/_{50}$ or $^1/_{25}$ of the amount of A and B antigens per red cell. Therefore, red cell stromata as a source of Rh antigen are exceedingly impure. I should estimate that a good dose for desensitization should contain purified Rh hapten equivalent in amount to that which could be obtained from 500 cc. of blood. Therefore, if we are going to get anywhere we shall have to find a better way of getting Rh hapten. Of course, there is plenty of material available as a by-product from blood plasma, but we have no means of purifying the material in order to extract the antigen. To use crude red-cell stromata would entail the injection of many other extraneous substances which might do harm; in any event, such material would be unpleasant to work with.

As a preventive measure one might advocate eugenic marriages. However, that would be difficult to carry out, because it would be hard to convince a couple not to get married because the girl is Rh-negative and the boy is Rh-positive and there is a remote possibility that she may be the one in fifty who is capable of becoming sensitized. However, if an Rh-negative woman is a sister of another woman who has had erythroblastotic babies, then I think eugenic advice is strongly indicated, because there is a much higher probability of her becoming sensitized to the Rh factor. The ability to become sensitized is hereditary, as shown by my recent observation of two sisters, both of whom had stillbirths due to Rh sensitization.

It is possible to offer an opinion to some of these couples as to their chances of having an Rh-negative and therefore normal baby. If the husband is homozygous for the Rh factor, then every child must be Rh-positive and therefore subject to the action of the maternal isoantibodies. If one or more of the children of such a couple have already been Rh-negative, obviously the husband must be heterozygous for Rh factor and there is a fifty-fifty chance that the next child will be Rh-negative also, and therefore normal.

With the aid of the Rh types one can recognize some of the homozygous men. Type Rh_1Rh_2 is one of the homozygous types. Ordinarily, such individuals must transmit either Rh_1 antigen or Rh_2 antigen to every child. That is, every child in such a family will get one of the Rh antigens and it will therefore be subject to the disease.

There is a certain antigen, Hr, which, if tested for in Rh-positive individuals (type Rh_1) helps us to ascertain whether a man may or may not be heterozygous. This phase of the subject is a bit complicated and more of a laboratory problem than a clinical problem. It is discussed in detail in a forthcoming paper to appear in the *Journal of Experimental Medicine.*

Finally, it might be mentioned that spacing of the pregnancies has proved to be important. If the pregnancies are close together, isoimmunization is apt to be more intense and the diseases will become aggravated in succeeding pregnancies, while if a woman who has had an erythroblastotic baby does not become pregnant again for eight or ten years, she may have a better chance to have a normal child.

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INTERN: Why is it so hazardous to use Rh-positive blood?

DR. WIENER: Because, as I mentioned, there is a third type of antibody which gives no in vitro reactions but which can be picked up in the biologic test. For example, I have women who have had erythroblastotic babies who have no agglutinins or blocking antibody in the serum, but when you give them 50 cc. of Rh-positive blood they have a chill and hemolysis, as demonstrated by inspecting plasma.

DOCTOR: That is due to another antibody?

DR. WIENER: Yes.

DR. SMITH: You can only determine it by injection of the blood?

DR. WIENER: That is the only way to obtain an absolutely reliable result; the in vitro tests are less reliable. If the biologic reaction following injection of 50 cc. of Rh-positive blood is negative the woman is not sensitive. If it is positive, she is sensitive.

DR. HARRY GOLD: Is the usual in vitro test for Rh factor hemolysis or agglutination?

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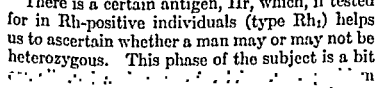
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tion in the in vitro tests is a strong indication that sensitivity may be present, but this is not entirely reliable, in contrast to the biologic test. There have been cases in which the maternal serum had anti-Rh agglutinins of titer as high as 100 or more, yet the infant, when born, proved to be normal clinically. On the other hand, severe instances of hemolytic disease may occur in the absence of detectable agglutinins.

DR. MARION B. SULZBERGER: The point is that these two common antibodies are closely associated.

DR. WIENER: That is correct. There is close correlation between the occurrence of agglutination in vitro and hemolysis in vivo, but the correlation is not absolute.

DR. WHEELER: All cases which give agglutination are likely to give a reaction. Those which do not give agglutination are not necessarily free of that danger.

DR. WIENER: We now often see cases of women who have had an unexplained stillbirth, years earlier, and we test them and find they are Rh-negative with blocking antibodies. Now the mystery is explained. The stillbirth was caused by hemolytic disease. In 1936 that case would not have been diagnosed as hemolytic disease, but merely listed as unexplained stillbirth.

I can cite for you a case in point. A woman who is Rh-negative had an erythroblastotic baby. The husband was type Rh_1Rh_2. We therefore knew that the next baby had to be Rh-positive and have the disease, so we drew some Rh-negative blood in preparation for the delivery. When the infant was delivered by cesarean section, it looked pale and very weak. We had to give it blood within fifteen minutes after birth or that baby would have been dead. Subsequent calculation showed that the hemoglobin concentration at birth must have been less than 20 per cent. The infant's condition at birth was so desperate that we transfused 150 cc. of blood at one time. It was a pale baby, not jaundiced, and made an uneventful recovery. This case without the benefit of modern knowledge, would have terminated as an unexplained neonatal death.

In a second case, last week, the baby again was expected to be erythroblastotic. At birth everybody remarked that the baby appeared perfectly normal. However, I noticed a certain coppery color to the skin which I have seen in these cases before, and the hemoglobin concentration turned out to be only 75 per cent. Therefore I gave the baby one transfusion of 95 cc. of blood and the hemoglobin went up to 120 per cent. I then performed a biologic test on the mother with 50 cc. of Rh-positive blood because her serum contained no demonstrable antibodies. This was followed in one hour by a sharp chill and the plasma became darker in color, proving that the mother was sensitive to the Rh factor. When the baby was seven days old I received a call that his hemoglobin was again only 75 per cent. If this baby had not had the transfusion at birth his hemoglobin would have been 40 per cent, because 30 per cent of his blood was derived from the Rh-negative donor. This case demonstrates the reliability of the biologic test for detecting Rh sensitization in contrast to the in vitro tests for agglutinins and blocking antibodies.

DR. SMITH: To continue the subject of erythrob astosis, would you tell us, Dr. Levine, if there has been any difference in the mortality figures on the pediatric service in the last year or two, in cases of erythroblastosis with the use of Rh-negative blood as compared with several years ago when transfusions were given in which the Rh factor was unknown? It seemed to me that even in the earlier period, our mortality figures were beginning to decline. I believe the reason for the more favorable results was that the diagnosis was being made a little earlier and transfusions were given more promptly.

Dr. Levine, do you want to give us your experience?

DR. LEVINE: I had my secretary list the number of cases of erythroblastosis fealis, or hemolytic anemia according to the new terminology, and we had, between 1932 and 1938, 32 cases, with 14 deaths, or a mortality of 43 per cent. From 1939 to 1941, a period of three years, we had 25 cases with 9 deaths, or a mortality of 36 per cent. About that time, I think, we began to use Rh-negative blood and in the last three years, 1942, 1943, and 1944, we had 33 cases with only 3 deaths, or a mortality of 9 per cent.

We did not do biologic tests, but we did use Rh-negative blood, and there is this drop from about 35 per cent to 9 per cent in a significant number of cases, so I think the routine use of Rh-negative blood was of some benefit. Presumably, the use of the biologic test in addition to the Rh-negative blood would be even more effective.

Turning to another question, there is some evidence now that would indicate that there is a higher proportion of Rh-negative mothers and Rh-positive babies in those children who have mental retardation. Some recent work in the last year has indicated that apparently this factor may not only produce hemolytic anemia in the newborn but may, in the absence of kernicterus, produce nonspecific mental retardation. In mongolian idiocy, in hemolytic idiocy, and other types this blood pattern occurs in the same

proportion as in the general population, while in those of nonspecific origin the pattern of Rh-negative mother and Rh-positive baby is disproportionately high

DR SMITH Don't you think that possibly points to the fact that the Rh factor is active earlier in fetal life than one suspects?

DR WIENER I have to admit that I have not accepted this report too literally, for the reason that the meager statistics available were rather unconvincing The Rh tests are very delicate, and satisfactory evidence was not presented that the proper controls had been included and the technic employed was impeccable

There is no doubt there are a certain number who do develop mental deficiency from kernicterus That we know from direct evidence Whether the numbers of cases with minor degrees of this disorder are sufficient to swell the numbers of mental deficients so that these can be detected merely by statistical study of the Rh types I question I believe these cases are much too rare to have such an obvious effect

DR SMITH May I go from this phase of erythroblastosis to the transfusions in later life? Dr Stillman, would you care to discuss the transfusion reactions that occur outside the period of pregnancy with relation to the Rh factor?

DR RALPH G STILLMAN It is very difficult to discuss that phase of the subject adequately from our experience, because, among the total number of transfusion reactions which occur in any institution there is commonly no way or no consistent attempt to identify which ones of those reactions are actually hemolytic reactions or incompatibility reactions

When the reaction is frankly caused by incompatibility the patient becomes jaundiced and has hemoglobin or urobilin in the urine There is no question about it, but, as Dr Wiener has already said, many of those reactions, or at least some of them, are, in all likelihood, incompatible reactions I can say that, so far as our experience goes, over a period of twelve years we have had only one instance in which we know that the reaction of incompatibility was caused by the Rh factor

We had a similar reaction in the early days of this hospital, about 1934 or 1935, in which Dr Landsteiner was able to identify an atypical agglutinin in the patient's serum, and we can only assume that that, in all likelihood, was an Rh incompatibility

So far as our experience is concerned, with the exception of only two cases, the Rh factor has caused very little difficulty in ordinary transfusion, even when repeated

I am very glad that Dr Wiener has introduced this question of biologic tests, because our ordinary compatibility tests commonly fail to detect incompatibility due to the Rh factor

In the one case which we have had of a surgical patient, nonpregnant, the compatibility test was positive but in the other cases which we have had in pregnant women the conventional compatibility tests were entirely negative, even though carried out both at room temperature and at 37 C

DR SMITH Dr Reznikoff, have you had any experience with the Rh factor in transfusions in anemia?

DR PAUL REZNIKOFF No Of course, in this institution Dr Stillman does all these duties We come to him when we have a problem

Recently one of the students, Mr Ebaugh, wrote a very good review, which I enjoyed reading very much I hope he will take part in the discussion

There is one thing which strikes me from a hematologic standpoint, and that is that our concern about the Rh factor may lead us to forget that there are other problems in transfusions which have to be solved and which probably depend upon incompatibilities We have today two patients in the hospital who are Rh-positive and go ahead and give them their type blood and don't worry about the reaction if the matching is good As a matter of fact, one of these individuals has had several reactions

I hope we do not get too obsessed with the Rh problem and forget that there are other problems in transfusions which are not solved yet We get reactions in spite of apparent test-tube and hematologic correctness

DR WIENER Referring to Dr Reznikoff's problem of Rh-positive patients having hemolytic reactions, we have been able to solve a large proportion of these cases also First of all, there are more than one Rh factors Persons belonging to one Rh type have, in a few cases, become sensitized by blood of a different Rh type In the scheme of eight Rh blood types the Rh negative type has a position like that of group O among the four blood groups For example, a person in group A can be given group A blood or group O universal donor blood Similarly, a person of type Rh_1 sensitized to blood of type Rh_2 can be given type Rh_1 blood or Rh negative blood, so that in all cases when an Rh positive patient has had a hemolytic reaction it is worth while empirically to try Rh negative blood, and we have successfully solved quite a few transfusion problems in that way

On the other hand, type Rh_1 individuals are of two types some are Hr positive and some are Hr negative If the patient belongs to type Rh_1 and is Hr negative, transfusions from Hr nega-

tive donors are worth trying. If suitable antiserums are not available for making the in vitro tests, biologic tests with Rh-negative and Hr-negative donors can be tried.

In one case of an intragroup hemolytic reaction, I found the patient to belong to group O, type N, and Rh-negative, with anti-M as well as anti-Rh agglutinins in her plasma. This patient was successfully given blood from a group O, type N, Rh-negative donor. Since only one in seven persons is Rh-negative, and only one in five is type N, only one in 35 group O donors would be type N and Rh-negative and therefore suitable for this patient.

Another thing to bear in mind is that the patient may be hemolyzing the donor's blood very slowly over a period of days instead of hours, so while there may be a very slight rise in icteric index the persistence of donor's blood in the patient's circulation may cause confusion in the in vitro tests. Recently, following an intragroup reaction, I typed a patient's blood and found it to consist of a mixture of Rh-negative and -positive blood. This patient had been typed by the laboratory after the reaction occurred and classified as Rh-positive. I felt, however, that the patient was Rh-negative and was slowly hemolyzing Rh-positive blood received by transfusion, some of which still persisted in the circulation. This patient's condition was desperate; the previous transfusions had failed to raise the hemoglobin, which dropped instead to 15 per cent. On my advice the patient was given 1,000 cc. of Rh-negative blood, a massive transfusion; whereas previously after each transfusion the hemoglobin dropped lower, this time the hemoglobin went up and the patient improved markedly. Unfortunately, five days later the patient died of a cerebral embolus, but that, of course, had no connection with the problem.

DR. WHEELER: Dr. Wiener, you spoke earlier of individuals who have never been pregnant and to whom it is perfectly safe to give a transfusion without regard to the Rh factor. That would apply only to the first transfusion which they received, would it not?

DR. WIENER: That is right.

DR. WHEELER: After they have received one transfusion they might have difficulty?

DR. WIENER: Yes.

DR. WHEELER: How long does it take, after a transfusion, for sensitivity to develop in a patient who has never been pregnant and has never had a transfusion before? For example, could you give a transfusion daily for five days without any difficulty?

DR. WIENER: This varies considerably in different patients. As already mentioned, there are two broad groups: patients easy to sensitize and patients difficult to sensitize, of which the former make up 2 per cent. The minimum period which it takes to sensitize is about a week, so if you give a transfusion at one- or two-day intervals, the patient is continually in the negative phase, and while the patient may not be benefited, if of the sensitive type, he or she will at least not be subjected to a dangerous reaction. Incidentally, with regard to patients difficult to sensitize, I don't think that they make up an absolute group, because there are probably none who cannot finally be sensitized. For example, there was a case reported by Drs. Ayer and Kammer in which an Rh-negative patient received more than twenty transfusions before developing Rh sensitivity, and in a case of Dr. Bohrod's a woman gave birth to eleven perfectly normal children and then had three erythroblastotic infants in succession, two of whom died of the disease. The difference between the two groups is one of degree and kind, rather than a real qualitative difference. Similarly, while everybody can become allergic, only a few people are so allergic that they get hay fever from inhaling pollen.

DR. GOLD: I want to ask Dr. Wiener whether he would hazard a guess as to what proportion of all transfusion reactions are likely to involve the Rh factor.

DR. WIENER: That depends on the laboratory technic. If the technician is apt to make errors in grouping, then most reactions will be due to wrong grouping.

DR. GOLD: Let us take the best hospital with the best technicians.

DR. WIENER: In the best hospitals, employing best technics, I would estimate approximately 2 per cent of all blood transfusions are followed by chills. Of these perhaps one out of ten might represent an intragroup incompatibility reaction caused by Rh sensitization

MR. F. G. EBAUGH: I would like to ask Dr. Wiener about Rhy, Rhx, and the St antibody described by the British workers.

DR. WIENER: The St antibody appears to be identical with Levine's Hr antibody already mentioned. Blood factor Rhx appears to be the same as the rare factor named Rh′ by me. In the forthcoming paper to appear soon in *Science*, in addition to the six allelic Rh genes which I originally described, I describe three or four additional rare genes giving reactions intermediate between those of the standard genes. One of these may be the same as the British gene Rhy.

DR. SMITH: Are there other questions?

DR. LEVINE: May I ask, Dr. Wiener, will you just say a word about the secretors and nonsecretors? Is that terminology completely outmoded?

DR WIENER The terms "secretor" and "nonsecretor" apply only to the four blood groups A person in group A, B, AB, or O may or may not have the corresponding group substance in water soluble form in the body fluids and secretions Eighty-five per cent do and 15 per cent do not by heredity Those who do are called secretors because you can demonstrate the group substances in any of their secretions, like saliva Those who do not are known as nonsecretors

DR LEVINE So far as it concerns the Rh factor, are all persons nonsecretors?

DR WIENER As far as we know, barring one report by Boorman and Dodd in England, who claim they detected Rh factor in small amounts in the tissues But so far their report has not been confirmed

DR SMITH The problem of the secretor and nonsecretor only comes up when one deals with an Rh positive mother of an erythroblastotic infant In that case you might blame the A and B factors, if present in the fetal blood and not present in the maternal blood Then the question of secretor and nonsecretor comes up, does it not?

DR WIENER That is right There have been a few cases in which the Rh types were compatible between mother and child, and the occurrence of hemolytic disease in the infant was ascribed to incompatibility with regard to the common blood groups Ordinarily it is assumed that the presence of A and/or B substances in fetal tissues and secretions protects the red cells from the action of maternal anti A and anti-B In some cases, however, the anti A and anti-B of the maternal serum was of such high titer that even if the fetus was a secretor it was felt there was not enough antigen to protect the red cells

DR GOLD I assume that in the administration of plasma the Rh factor is not a problem?

DR SMITH Rh antigen appears to be restricted to the red cells and, if present in the plasma at all, is present in too minute amounts to cause any difficulty

Summary

DR WIENER The practical importance of the Rh factor lies in the fact that certain individuals whose blood lacks the Rh factor, and who are therefore said to be Rh-negative, have the capacity to become sensitized to the Rh factor when exposed to the antigen as a result of a transfusion of Rh-positive blood or a pregnancy with an Rh positive fetus Such sensitivity to the Rh factor manifests itself clinically in one of two ways, namely (1) the occurrence of an intragroup hemolytic transfusion reaction when the patient is given transfusion of Rh positive blood, or (2) the birth of an infant with hemolytic disease or the occurrence of a stillbirth Since, among white individuals, approximately 15 per cent are Rh-negative, the approximately equal incidence of intragroup transfusion reactions and erythroblastotic infants—namely, approximately one in 300 transfusions or pregnancies, respectively—implies that only one in about 40 to 50 Rh negative individuals is readily sensitized to the Rh factor However, as was pointed out, the difference between individuals easy to sensitize and those difficult to sensitize is probably not absolute, so that probably every Rh-negative individual could eventually be sensitized to the Rh factor if exposure to the antigen were sufficiently intense, as a result of multiple transfusions or pregnancies

As was pointed out, intragroup transfusion reactions due to the Rh factor can be prevented by giving Rh-negative patients transfusions only with Rh negative blood While this procedure is imperative in sensitive patients, and advisable in patients receiving a series of transfusions, it is not essential at the first transfusion in an individual not previously exposed to the Rh antigen Thus, wounded members of the armed forces can mostly have transfusions without regard to the Rh factor In the case of women in the child bearing period, however, attention should be paid to the Rh factor, because a transfusion of Rh positive blood into an Rh negative woman might serve to sensitize her and in that way ruin her chances of bearing a normal child

The transfusion therapy of infants with hemolytic disease is similar in principle to the prevention of intragroup hemolytic reactions, except that the infants are passively sensitized instead of actively sensitized to the Rh factor Whereas formerly, when donors were not selected for the Rh factor, some of these infants required a long series of transfusions before the hemolytic process finally stopped, cures now follow quite regularly after two or at the most four transfusions of about 75 cc each of Rh negative blood Dr Samuel Levine's mortality statistics showing a drop in the mortality rate from 36 per cent to only 9 per cent, reflect the improvement in the therapy of the disease The most convincing demonstration of the importance of the Rh factor, however, is the clinically obvious, dramatic life saving effect of transfusions of Rh-negative blood, when infants with the disease are treated

The complications introduced by the discovery that there are three different Rh factors, instead of one, giving rise to eight Rh types instead of merely Rh-positive and Rh-negative, were mentioned Fortunately, 90 per cent of instances of intragroup incompatibility or hemolytic disease

FOUR YEARS OF WAR SURGERY

Some people, including some physicians, have the notion that the calamity of war is offset, at least partly, by war's contribution to the advancement of medical science in general and of surgery in particular. Improvements in the medical service to our wounded men in the present war are due chiefly to the principle of advanced surgical units, to more rapid ground and air transportation, to the use of sulfonamides, to more liberal recourse to blood and plasma transfusions, and to plaster immobilization of soft-tissue wounds. Major General Mitchiner[1] asserts that this improvement is not as great as one would like to believe, especially in the prevention and control of sepsis. Mitchiner says that the "self-congratulatory coma into which some of our 'specialist' colleagues have allowed themselves to lapse is almost without justification." He feels that the slightly wounded should be given precedence of treatment.

These cases constitute 60 to 70 per cent of war wounds; if promptly and adequately treated near the battlefront, most of these men can be returned to the front line. In World War I a large number of wounds were from bullets, whereas those seen in the present war are mainly lacerated wounds of a severe type, the mortality from which is much higher. In the bombing casualties of aerial warfare some 60 per cent of the patients die either as a result of the actual injury plus blast or soon after from hemorrhage and shock due to the severity of the wound inflicted.

While admitting the great part played by the Blood Transfusion Service, Lord Mitchiner feels that there is a tendency to overevaluate blood transfusion to the detriment of older and simpler methods of resuscitation and wound treatment such as hot sweet fluids by mouth, warmth, and morphine. Furthermore, the risk of septic infection from administering blood transfusion on the field of battle and in the street during an air raid is considerable. Blood or serum should not be given intravenously farther forward than the advanced dressing station on the field of battle, the sick

[1] Mitchiner, Philip H.: Thoughts on Four Years of War Surgery—1939 to 1943, Brit. M. J. 2: 37 (July 8) 1944.

Case Report

UNUSUAL EPHEDRINE REACTION

DAVID LOUIS ENGELSHER, New York City

THE reason for presenting this case, of special interest to the general practitioner, in view of his frequent use of ephedrine, is that this is the first reported instance of ephedrine producing ridging of the nails in addition to an extensive and prolonged dermatitis medicamentosa from a single therapeutic dose.

A careful search of the literature[1-6] fails to reveal any mention of ridging of the nails from ephedrine, although dermatoses are described [1-3] Its significance will be described later

Case Report

Case 1.—T. F , aged 14 years, was referred to me by his family physician for chronic intractable asthma. His attacks, which started when he was 5 years old, were perennial, with very short periods

ceptible to poison ivy, and asthmatic seizures were provoked by nuts, dogs, and the smell of fish. Adhesive plaster produced a contact dermatitis A single dose of ephedrine internally caused an extensive and prolonged dermatitis with ridging of the nails, a rare occurrence which is the basis for this report.

His nose was chronically affected At the age of eight weeks he had facial eczema, which lasted a few months.

A frank family history of allergy was denied, although a cousin possibly was asthmatic The patient was a bright lad who had marked asthmatic and emphysematous findings Otherwise nothing unusual was noted.

Allergy Study.—By the scratch, intracutaneous, and patch tests and elimination methods, sensitivities were found to timothy, ragweed, oak, mixed feathers, horse dander, cottonseed, egg, milk, peanut, rice, perch, and pike

The combined catarrhal vaccine produced a slight reaction within twenty minutes and a moderate reaction in twenty-four hours. Patch tests for adhesive plaster and poison ivy were marked

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areas developed in the axillae, on the knees, palms, and around the lips. The skin in all areas mentioned felt tight,

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subside. However, for many weeks later, ridging of the finger nails persisted, with desquamation of the affected skin areas It required several months for the skin and fingernails to return to normal.

Treatment and Progress.—The general rules followed in allergy treatment were carried out, plus the elimination of the specific offenders. Parenterally, a combined autogenous and stock catarrhal vaccine was used, commencing with very small, well-diluted doses (one million organisms per cc) at weekly intervals. Later, the intervals were extended to one month when the condition had im-

, plus the inhalation of

this regimen, and without recourse to potent therapy, the patient's progress was most satisfactory. The emphysema receded markedly, the interval between attacks became longer, and the seizures were less severe. After two years of this therapy, there was rarely an occasion for the use of oral or inhalatory medication, and his condition was improved sufficiently for him to accept a scholarship at an engineering university out of town.

Comment

The significant points of this case report are:

1. Ephedrine sensitivity should be considered in the causes of ridging of the nails, which are numerous[6]

2 A most searching inquiry is necessary, reviewing months of possible contacts, since a single dose of ephedrine may be sufficient to produce, besides ridging of the nails, an extensive dermatosis.

3 A thorough allergy study consists of more than the performance of skin tests. It embraces, besides scratch, intracutaneous, and patch tests, elimination procedures and experience; the knowledge that a negative skin test does not rule out a certain allergen as a factor, as in this case, nor that a positive skin reaction incriminates that material as a present cause Skin tests are an aid in practical hands, misleading in those with limited training.

4. If a trivial dose, as already mentioned, can precipitate so much disease, it is possible that unsolved diseases, such as psoriasis, may be sensitization disturbances not necessarily from something contacted frequently, but from an overlooked occasional allergen. This point raises the ideal procedure in the care of patients, namely, very careful recorded observation over a long period of time.

5 Before prescribing, an inquiry as to drug sensitivities should be made, particularly in allergic patients.

Summary

A case of ridging of the nails caused by ephedrine is described, believed to be the first reported in the

literature. Its significance in the proper procedure of allergic diagnoses is discussed.

178 Mount Eden Avenue
New York City 57

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BIRTH UNDER HYPNOSIS

Hypnosis as a means of producing a state of relaxation in which minor operations can be performed has been described but has never become popular. It has been most used in dentistry, but only to a very limited extent.

A recent paper from America on the use of hypnosis in childbirth may give added interest to a matter which is of both practical and theoretical importance. Kroger and deLee* report on 12 cases in which practically the whole of labor was carried out whilst the patient was rendered analgesic and trance-like. It seems that the dissociated condition lasted while forceps were applied. Episiotomy and perineal repair were undertaken, and though the report is not clear it seems that hypnosis was used in other cases in which labor was normal

When it was decided to use this method the gravida was placed in a hypnotic condition by the usual suggestive measures at fortnightly intervals from the sixth month onwards. In the course of these sessions deep hypnotic states were produced, and suggestions that the labor would be painless and convalescence normal were made. During labor itself the hypnotic state was produced shortly after onset, and was continued for as many hours as necessary, during which time the patients were able to micturate, defecate, and bear down as in labor without any hypnosis. The hypnotist could arrange that the suggestions were equally effective if made by the house officer or nurse in charge. It is claimed that to dispense with medical hypnotics and anesthetics is of much importance where complications such as heart disease or hypertension are encountered, and that in perfectly healthy women the absence of medicine is of benefit in the puerperium.

Why, it must be asked, is the practice not more widespread? Would not suggestions made under hypnosis during the latter months of pregnancy benefit many women frightened of childbirth? The efficiency of modern anesthetics and hypnotics, and their rapid effects, obviously appeal more to obstetricians, who are still unable to state the exact moment when labor will begin. There is a vigorous conception that the healthy, normal mother does not expect to be relieved of labor pains which she knows her friends and her ancestors have experienced and largely forgotten, and there is a sort of superstitious belief that the woman who really fears childbirth is a poor specimen, and that to experience such ordeals is a stimulus to character formation. But the obstetrician rightly fears labors more in the neurotically affected and in those with systemic disorders. If hypnosis does what Kroger and deLee claim, should it not be available for these patients?

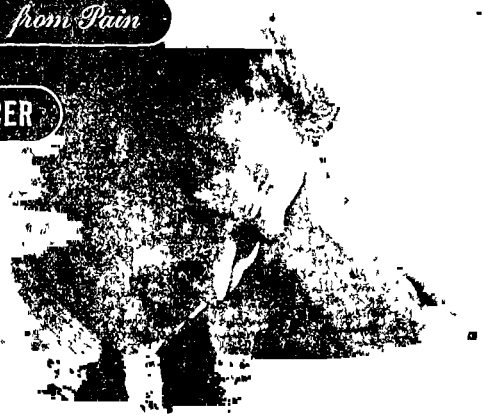
The real difficulty is probably a practical one: hypnosis suddenly attempted in the maternity bed will be unlikely to succeed. It must be prepared for by preliminary sessions, and that means a regular time-table for the hypnotist and his availability when labor starts. Hence further trials will come from special gynecological units to which psychiatrists with interest in the problems of hypnosis are attached. But the evidence that such collaboration between the gynecologist and the psychiatrist is overdue is daily apparent to both parties. The former is wanting to use the latter for many more purposes than to tell him when termination is justified on psychiatric grounds. Both are interested in the amenorrhea which accompanies anorexia nervosa. Both are interested in the problems of functional dysmenorrhea. Neither has solved the psychological problems of the menopause of the endocrine substratum; why is the menopause so physically and psychologically disturbing in some, so comparatively minor an event in others? Both psychiatrists and gynecologists (as well as the sociologist and anthropologist) are interested in a fuller explanation of the food fads of pregnancy, the recurrent fears about mutilated, malformed, and defective children that the pregnant mother has, and about the reasons given for family limitations. When psychiatrists are more numerous and more trained in field work some of these problems may be tackled and suitable prophylaxis undertaken, as well as more use made of hypnosis as a substitute for anesthetics and medication.—*Editorial British M. J., Sept. 16, 1944*

* Am. J. Obst. & Gynec. 4: 655 (1943).

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Case Report

CONGENITAL MEGACOLON TREATED WITH MASSIVE DOSES OF SYNTROPAN*

VINCENT DEPAUL LARKIN, M.D., and ADOLPH G. DESANCTIS, M.D., New York City

THE use of syntropan in the medical management of certain cases of congenital megacolon was first suggested by Klingman.[1] In a search for a drug with the parasympathetic depressant action of atropine, but without its undesirable side-effects, he tried syntropan and reported excellent results in those cases characterized by spasm (achalasia) of the rectosigmoid apparatus. This group of patients exhibits failure of the rectosigmoid to relax, either as a result of overactivity of the sympathetics or failure of the parasympathetics to properly inhibit the normal activity of the sympathetics which innervate the rectosigmoid.

Case Report

Case 1.—W. V. S. (J61981), a 15-month-old white boy, was admitted the first time on October 13, 1941. Constipation and abdominal distention had been present since birth and pallor had been noted since the age of 1 month. Frequent administration of enemas and cathartics had always been required to maintain bowel function. An increase in pallor and progressive weakness were noted for the month prior to admission. The admission physical examination, including a rectal examination, was entirely negative, except for marked pallor and abdominal distention.

A blood count revealed marked anemia, with 1,600,000 red blood cells and 2.8 Gm. of hemoglobin, the white count and differential being within normal limits. The following tests were negative: Schick, Mantoux (1:1,000), blood Wassermann, erythrocyte sedimentation rate, and repeated urine analyses and stool examinations for ova and parasites. A blood chemical examination revealed an icterus index of 16.7 units and a positive indirect Van den Bergh test. Bile pigments were never found in the urine. A gastrointestinal series was also done during this first admission, the outstanding feature being a marked megacolon. X-rays of the long bones showed a moderate degree of decalcification.

The anemia quickly responded to transfusion and a course of prostigmine bromide orally (22.5 mg. in the morning and 15 mg. in the evening) established daily bowel movements, although no relief of the abdominal distention was obtained. One month after admission, daily bowel movements having been established for about a week, the patient was discharged. The improvement in symptoms was very brief, however, and a few days after discharge he was readmitted because of tremendous abdominal distention, obstinate constipation, and a temperature of 105 F., all of which responded promptly to a high colonic irrigation.

For two months following this second admission attempts were made to establish regular bowel movements by the use of prostigmine bromide and of mecholyl bromide (up to 250 mg. twice a day). A combination of 250 mg. of mecholyl bromide and 7.5 mg. of prostigmine bromide twice daily after meals produced typical symptoms of toxicity with no relief of the constipation.

Drug therapy of this type having failed, spinal anesthesia was resorted to in an attempt to evaluate the benefit which might be obtained from lumbar sympathectomy. Twenty-five mg. of procaine were injected into the spinal canal; the patient developed respiratory arrest and required artificial respiration, but no change in the size of the abdomen or spontaneous evacuation of the bowel was observed. This discouraged further investigation along these lines.

During the third month of hospitalization syntropan was started; 5 mg. were given three times daily and the patient responded immediately by moving his bowels once or twice a day and by a decrease in the abdominal distention. Doubling this dosage caused no further improvement and after one month of satisfactory bowel movements the child was discharged on this medication, plus a low residue diet and a dose of mineral oil every day.

For the next six months the patient did very well, moving his bowels daily, although during this period the dosage of syntropan had to be increased to 25 mg. three times a day in order to maintain a regular bowel function.

While still on this regimen constipation and dilatation of the abdomen recurred and the child was readmitted a third time. Syntropan was given in amounts of 100 mg. three times a day without effect and was then discontinued. Prostigmine and then mecholyl and the combination of the two were again tried unsuccessfully. Syntropan therapy was then resumed and with a dosage of 150 mg. three times a day there was moderate improvement. The dosage of syntropan was then slowly increased over a period of two months, in order to determine whether the patient would improve further with larger doses and to avoid, if possible, the periods during which he failed to respond to the drug. The dose finally reached 1,250 mg. daily in three divided doses. This large amount of syntropan was given daily for about three weeks, without evidence of toxicity but without further improvement in symptoms. For this reason the dose was decreased. The patient was discharged on April 21, 1943, on 100 mg. of syntropan three times daily and had satisfactory bowel movements for the next two months.

Discussion

Klingman[1] noted excellent results in his patients with doses of syntropan up to 150 mg. daily. Larger amounts were not given because the toxic levels were not known. The relative nontoxicity of syntropan, however, has been noted by other observers. Fromherz[2] declares that "the selective toxicity of atropine for the human central nervous system is

[Continued on page 312]

From the Department of Pediatrics, New York Post-Graduate Medical School and Hospital, Columbia University.

* The phosphate of dextro-levo tropic acid ester of 3 diethylamino 2, 2 dimethyl-levo-propanol.


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[Continued from page 310]

absent in syntropan." He noted that, in cat and rabbit experiments, the action of atropine was a thousand times that of syntropan in producing mydriasis, a hundred times that of syntropan in inhibiting salivation, five hundred times that of syntropan in its effect on the circulation, but only twenty times greater on nerve endings of isolated rabbit intestine. In other words, the action of syntropan approaches that of atropine on the smooth muscle of the intestine but is appreciably less in other effects. Clark[3] and his collaborators showed that syntropan in small amounts effectively antagonizes stimulation by drugs of the parasympathetic mechanism of excised intestine without muscular depression. Larger amounts of syntropan produce some direct muscular depression of excised intestine.

The largest doses of syntropan given to humans are reported by Schlezinger and Alpers[4] in the treatment of Parkinsonism in adults. The maximum dose administered was 3,200 mg. daily, with production of toxic symptoms. These included nausea, vomiting, palpitation, confusion, sluggishness, drowsiness, and visual hallucinations. They noted maximum improvement at a level of 2,400 mg. of syntropan daily, with no further improvement as the dose was increased.

The lack of toxicity of syntropan is well demonstrated in the present case. This patient, two years of age and weighing thirty pounds, received over 1,200 mg. of syntropan in divided doses daily for three weeks, without any evidence of toxicity. Obviously there is no cumulative effect, as evidenced by the long period in which the patient received the medication.

Review of the case reveals that no better results were obtained from a dosage of 1,250 mg. of syntropan daily than from the original dosage of 15 mg. daily. However, it was noted that the patient gradually required larger doses of the drug and that after his last discharge the maximum therapeutic effect was obtained with 100–300 mg. of syntropan daily.

Summary and Conclusions

A case of congenital megacolon which responded well to the use of syntropan is presented. The lack of toxicity, cumulative action, and side-effects of this drug are pointed out. Enormous doses may be given safely, but the maximum therapeutic effect is obtained with dosages far below the toxic level.

1060 Park Avenue
New York 28, New York

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1. Klingman, W. O.: J. Pediat. 13: 805 (1938).
2. Fromherz, K.: J. Pharmacol. & Exper. Therap. 60: 1 (1937).
3. Clark, B. B., Shires, E. B. S., Jr., Campbell, E. N., and Welch, C. S.: J. Pharmacol. & Exper. Therap. 66: 464 (1939).
4. Schlezinger, N. S., and Alpers, B. J.: Am. J. M. Sc. 201: 374 (1941).

EYE EXERCISES FOR DEFECTIVE VISION

Revival of interest in the unorthodox methods of treating visual defects, the result of Mr. Aldous Huxley's *The Art of Seeing*, was discussed in the *Journal* June 31, 1943.[1] In his youth Mr. Huxley suffered an attack of keratitis punctata which left one eye just capable of light perception and the other with about 5 per cent of normal vision. After about a quarter of a century of struggling with increasing visual difficulties he met a woman disciple of the late Dr. Bates, and she initiated him into the regimen of "blinking," "winking," "nose reading," "palming," and "sunning." Within a couple of months, he reports, he had learned to read without the aid of artificial lenses and could also read without strain and fatigue, for he had learned to avoid the conditions making for strain and get rid of fatigue as soon as it began to manifest itself. Mr. Huxley believes that all defects of vision can be cured by induction of cerebral and ocular "dynamic relaxation."

Bate's hypothesis that visual derangements and refractive errors are due to a deformation of the eyeball, resulting from nervous and muscular strain of the superior and inferior oblique muscles, and that the ciliary muscle has nothing to do with the focusing of the eye, is contrary to well-established scientific and clinical observations. Huxley himself admits that his visual acuity has not improved. His point is that he has learned how to use what he has to better advantage. Lancaster, in a recent contribution, advances the thought that "buried in a mass of what to ophthalmologists seem foolish gestures and performances, best defined as hocus pocus, there are sound and fruitful ideas." He would remind the ophthalmologists that seeing is only half ocular; the other half is cerebral. Since seeing is only partly a matter of the image on the retina and the sensation it reproduces and is in still larger part a matter of the cerebral process of synthesis, in which memories play a principal role, it follows that by repetition, practice, and exercise one builds up a substratum of memories useful for the interpretation of sensations and facilitates syntheses which are the larger part of seeing.

This physiologic concept of the function of vision is not new. As Duke-Elder points out in his review of Huxley's book, visual defects are sometimes muscular in origin, sometimes psychologic. The competent ophthalmologist treats the former with curative exercises, while the latter requires the psychologic approach. Lancaster feels, however, that ophthalmologists have largely neglected this field and have concentrated their attention on the primary source of sensation, the image on the retina, leaving to irregular, half-trained workers the cultivation of what he considers a fruitful field of therapy.—*Editorial, J.A.M.A., Nov. 18, 1944*

[1] J.A.M.A. 122: 951 (July 31) 1943.



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*Reiter, P. J., Experience with Benzedrine, Ugeskr. f. laeger, 99 459-460, 1937

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Postgraduate Medical Education

Programs arranged by the Council Committee on Public Health and Education of the Medical Society of the State of New York are published in this section of the JOURNAL. *The members of the committee are Oliver W. H. Mitchell, M.D., Chairman, (428 Greenwood Place, Syracuse); George Baehr, M.D., and Charles D. Post, M.D.*

Cancer Teaching Day in Saratoga Springs

A TEACHING day on cancer was held at the Gideon Putnam Hotel, Saratoga Springs, on January 18. It was presented under the auspices of the Medical Society of the County of Saratoga, the Medical Society of the State of New York, and the New York State Department of Health, Division of Cancer Control.

The afternoon meeting was called to order at 3:30 P.M. by the chairman of the meeting, Dr. Frederick G. Eaton, president of the Medical Society of the County of Saratoga.

The first speaker, Dr. Andrew H. Dowdy, associate professor of radiology at the University of Rochester School of Medicine and Dentistry, Rochester, spoke on "Epithelioma of the Skin." Dr. Gray H. Twombly, assistant surgeon, Memorial Hospital, New York City delivered a lecture entitled "Cancer of the Cervix."

Dinner was served at 6:30 P.M.

The evening meeting at 8:00 P.M. was under the chairmanship of Dr. Joseph M. Lebowich, director of the Saratoga County Laboratory. The program consisted of two lectures: "The Significance of Enlarged Lymph Nodes," by Dr. Lloyd F. Craver, attending physician, Memorial Hospital, New York City, and "Diagnosis, Treatment, and Results in Cancer of the Breast," by Dr. Frank E. Adair, executive officer of Memorial Hospital, New York City.

Industrial Health

POSTGRADUATE instruction in industrial health was given before the Cortland County Medical Society on January 19 at 8:30 P.M., in the staff room of the Cortland County Hospital, Cortland.

A lecture, "Industrial Orthopaedic Problems," was given by Dr. Roscoe D. Severance, associate professor of orthopaedic surgery at the Syracuse University College of Medicine, Syracuse.

This instruction was presented as a cooperative endeavor between the Medical Society of the State of New York and the State Department of Health.

Psychiatry in General Practice

INSTRUCTION in psychiatry was given to the Jefferson County Medical Society in January 11 at 6:30 P.M., at the Black River Valley Club, Watertown.

Dr. Samuel W. Hartwell, professor of psychiatry at the University of Buffalo School of Medicine, Buffalo, spoke on "The Recognition and Management of Psychiatric Problems in General Practice."

Postgraduate Series for Franklin County

POSTGRADUATE instruction has been arranged for the Franklin County Medical Society, to be held Tuesday evenings at 6 P.M. at the Elks' Club, Malone.

On January 16 Dr. Barton F. Hauenstein, assistant professor of medicine at the University of Buffalo School of Medicine, spoke on "Dysenteries—Bacillary and Amebic." On February 20 Dr. Frederick S. Wetherell, professor of clinical surgery at the Syracuse University College of Medicine, will speak on "Goiter—Its Management." On March 20 Dr. Leon H. Griggs, associate professor of clinical medicine at the Syracuse University College of Medicine, will discuss "Common Diseases of the Skin—Illustrated with Color Photography." On April 17 the lecture will be "Gynecology in General Practice," by Dr. Nathan P. Sears, professor of gynecology at the Syracuse University College of Medicine. On May 15 Dr. Ellery G. Allen, associate professor of clinical medicine and assistant professor of clinical pathology at the Syracuse University College of Medicine, will give a lecture entitled "General Résumé of Hematologic Disorders Including the Anemias."

This instruction is provided by the Medical Society of the State of New York, with the exception of the first and fourth lectures, which are provided by the Medical Society of the State of New York with the cooperation of the New York State Department of Health.



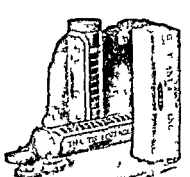
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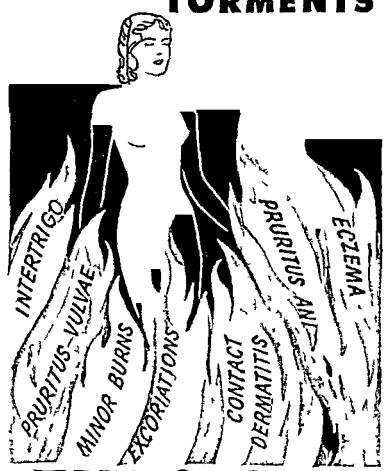
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Medical News

County News

Albany County

Dr. Frank H. Lahey, director of the Lahey Clinic, Boston, was the speaker at the meeting of the county society on January 17. The title of his address was "Lesions of the Terminal Ileum, Colon, and Rectum."

Discussion of the paper was opened by Drs. J. Lewi Donhauser, Stanley E. Alderson, and Arthur M. Dickinson.

Broome County

At the annual meeting and election of officers of the Broome County Medical Society held December 12, 1944, the following officers were elected for the year 1945: president, Dr. Frank G. Moore, Endicott; vice-president, Dr. Victor W. Bergstrom, Binghamton; secretary, Dr. J. C. Zillhardt, Binghamton; assistant secretary, Dr. Alfred L. Standfast, Binghamton; treasurer, Dr. Leonard J. Flanagan, [illegible] assistant treasurer, Dr. John M. [illegible] chairmen of committees: legislative, Dr. Elton R. Dickson, Binghamton; economics, Dr. Richard W. Rice, Johnson City; public relations, Dr. Charles M. Allaben, Binghamton; public health, Dr. Ralph M. Vincent, Binghamton; milk commission, Dr. Perry H. Shaw, Binghamton; library, Dr. Stuart B. Blakely, Binghamton; membership, Dr. Ralph J. McMahon, Binghamton; Compensation Board (for term of three years): Dr. Myer S. Bloom, Binghamton; Dr. Harry I. Johnston, Binghamton; Dr. Silas D. Molyneaux, Binghamton; board of censors: Dr. Charles M. Allaben, Binghamton; Dr. Stuart B. Blakely, Binghamton; Dr. Howard W. Davis, Binghamton; Dr. Harry I. Johnston, Binghamton; Dr. Edward M. Jones, Endicott; delegates to the State Society: Dr. Victor W. Bergstrom, Binghamton; Dr. Harry I. Johnston, Binghamton; alternate delegates: Dr. Elton R. Dickson, Binghamton; Dr. George C. Vogt, Binghamton.

Fulton County

Dr. Richard B. Cattell, assistant to Dr. Frank H. Lahey of the Lahey Clinic in Boston, was guest speaker at the regular meeting of the county society held in Gloversville on December 13. Dr. Morris Kennedy, president, presided.

The subject of Dr. Cattell's talk was "Recent Progress in Biliary Tract Surgery."

This was the fourth time during the past year that the society had as guest speakers famous men in the world of medicine and surgery.

About thirty members attended the meeting, and there were also a number of visiting physicians from Montgomery County in attendance.*

Kings County

The forty-seventh annual meeting of the Associated Physicians of Long Island was held at St. John's Hospital, Brooklyn, on Saturday, January 27.

The morning program consisted of clinics. The scientific session, at 2:30 P.M., was devoted to six ten-minute papers with discussions on diversified subjects. The annual dinner was served at 6:30 P.M. at the Brooklyn Club.

Nassau County

The appointment of Dr. Joseph H. Kinnaman, of Malverne, to the post of Nassau County Deputy Commissioner of Public Health by the Board of Health has been announced by Commissioner Dr. Earle G. Brown. Dr. Kinnaman was the director of the Kay County Health Department of Oklahoma and is the former director of the City of New Rochelle's Health Department. His appointment has the approval of the Nassau County Medical Society. He fills the position which has been vacant since the retirement of Dr. William H. Runcie, of Freeport, last April.

Dr. Kinnaman left New York in 1942 to take charge of a demonstration unit in Oklahoma, sponsored by the Commonwealth Fund of New York City.

A native of the State of Iowa, Dr. Kinnaman was graduated from the State University, having received his Bachelor of Science degree cum laude. He received the Doctor of Medicine in 1925. Following two years of teaching at the University of Iowa, he engaged in full-time public health activities as a deputy commissioner in Cleveland and Peoria. He was director of the Division of Maternal and Child Health in the Iowa State Department of Health for six years. Dr. Kinnaman took postgraduate work at Johns Hopkins University School of Public Health, receiving his degree of Master of Public Health in 1938.

He is a member of the Oklahoma State Medical Society and the American Medical Association. He has served as Director of Public Relations for Kay County Medical Society and was secretary of the medical staff of Ponca City Hospital. He is a Fellow of the American Public Health Association and chairman of the Health Officers' Section.*

Monroe County

Dr. Sidney C. Madden, associate professor of pathology, University of Rochester School of Medicine and Dentistry, has accepted a position as professor of pathology and head of the department of pathology at Emory University School of Medicine, Atlanta. The appointment will be effective in March.

Dr. Madden fills the vacancy which occurred when Dr. Roy R. Kracke left Emory to become dean of the University of Alabama School of Medicine, Birmingham.

New York County

Dr. Bret Ratner addressed the students of the Medical College of the University of Pennsylvania on January 12 on the subject "The Nature of Allergy."

Oneida County

At the December meeting of the Utica Academy of Medicine the speaker was Maj. Thomas A. Johnson of Rhoads General Hospital, Utica. The title of his paper was "The Irritable Colon." Discussion

[Continued on page 318]

* Asterisk indicates that item is from a local newspaper.



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[Continued from page 316]

was opened by Dr. F. M. Miller, Jr. The second speaker was Lt. Comdr. William Wallace, who related his experiences "With the Sea Bees at Attu."

Major Johnson is professor of gastroenterology in the Graduate School of Medicine at the University of Pennsylvania and is a member of the staffs of several Philadelphia hospitals. Lt. Comdr. Wallace recently returned from Attu in the Aleutians where he served as chief medical officer in the Naval Hospital there.

Dinner was served preceding the meeting.

• • •

The annual meeting of the county society took place on January 9 at the Hotel Utica. Dr. F. M. Miller, Jr., gave the president's address and election of officers was held. The list of the new officials will appear in a later issue.

A dinner was given at 7:00 P.M. before the meeting.

Ontario County

The first quarterly meeting of the county society for 1945 was held in Canandaigua at the Canandaigua Hotel on January 9. Following dinner and business meeting, Dr. Earle B. Mahoney, assistant professor of surgery at the University of Rochester, read a paper entitled "Chest Surgery."

Suffolk County

Sponsored by the medical board of the Huntington Hospital, a series of lectures on important and timely medical subjects has been planned for the general public. There is no admission charge.

The committee on arrangements for this course consists of Dr. Burdge P. MacLean, of Huntington, chairman; Dr. Anthony Cherry, of Huntington Station; Dr. Max Kimbrig, of Huntington; and Dr. Walter Novotny, of Northport.*

Westchester County

A regular meeting of the county society was held on January 16 at 8:30 P.M. at the New York Hospital, Westchester Division, White Plains. Two addresses comprised the scientific program: "The Medical Approach to Psychosomatic Problems," by Dr. James Flexner, and "The Psychiatric Approach to Psychosomatic Problems," by Dr. James H. Wall.

• • •

Dr. Joseph H. Beattie, dean of the practicing physicians in the Town of Greenburgh, was honored on December 6 at a dinner party in the Sleepy Hollow Country Club given by the medical staff of the Dobbs Ferry Hospital, of which he is a past president.

The dinner celebrated forty years' practice in this area by Dr. Beattie. He was presented with a gift from his colleagues by Dr. Harold A. Storms. He was extolled for his service to the community, charity, and interest in the welfare and growth of Dobbs Ferry by Dr. E. F. Sands, president of the medical staff, and others.

A native of Warwick, New York, Dr. Beattie attended Warwick Institute before entering the New York Homeopathic Medical College, from which he was graduated in 1902. For two years he interned at the Hahnemann Hospital in Philadelphia and spent a summer season in postgraduate work in London, England, before beginning his professional career in Dobbs Ferry in 1904.

Dr. Beattie enlisted in the Army on June 13, 1917, was commissioned a first lieutenant, and advanced to the rank of major in the expeditionary force in France.

Dr. Beattie is affiliated with the American Medical Association, State Medical Society, Westchester Medical Society, Association of Military Surgeons, Veterans of Foreign Wars, and the American Legion. He has been a benefactor for many years of the Dobbs Ferry Free Library, where a memorial shelf is maintained in memory of his wife, Annie M. Baxter Beattie.*

• • •

The Westchester Medical Society's governing board has authorized its war participation committee, headed by Dr. E. Leslie Burwell, of New Rochelle, to set up a panel of county doctors to treat World War II veterans. The Veteran's Information and Service Center called the society's attention to this urgent need for returning servicemen and -women.

At an executive session, the war participation committee was requested to arrange for panel personnel from the various county areas and to formulate a program to provide necessary medical examination, care, or advice for veterans, Boyden Roseberry, executive secretary of the Medical Society, said. Dr. William A. Holla, county health official, has indicated that public health clinics are expected to care adequately for the present small volume of veterans until the medical panel is established.

The number of doctors on the panel is expected to vary with the magnitude of the work, Mr. Roseberry said. Some of the society members are veterans of World War I, but all members are anxious to cooperate in any possible way, he also stated. The workers are volunteers.

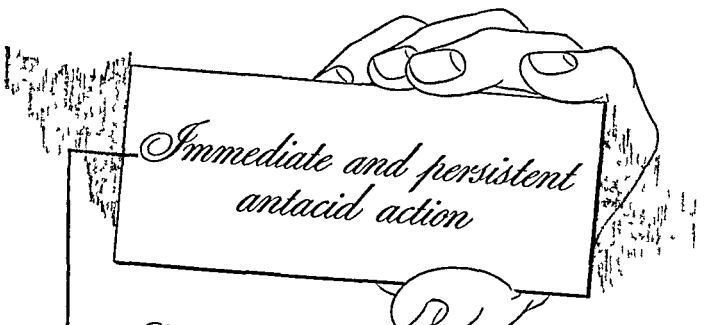
Facilities and personnel for handling psychiatric and malaria cases are inadequate for any large volume at present, but the medical society will make long-range plans to provide the most adequate possible service.*

PHYSICAL THERAPY COURSES AT COLUMBIA

During the winter and spring sessions, 1944–1945, Columbia University will give a ten-month course leading to a Certificate of Proficiency for Technicians in Physical Therapy.

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Hospital News

College of Surgeons Announces Hospitals Approved for Graduate Training in Surgery

THE American College of Surgeons announces that two hundred and thirty-one hospitals in the United States and Canada have been approved for graduate training in general surgery and the surgical specialties. The list of approved hospitals for this purpose is published in the annual Approval Number of the *Bulletin* of the College just issued. As a result of the 1944 survey, nine additions to the approved list were made compared with last year.

In announcing the new approved list, Dr. Malcolm T. MacEachern, associate director, states that five hundred or more surveys of hospitals offering opportunities for graduate training in surgery are planned during the coming year, the increased emphasis upon this work being stimulated by the need for providing ample opportunities for resumption of training by medical officers when they return from service with the armed forces. The College, through Maj. Gen. Charles R. Reynolds, Consultant in Graduate Training in Surgery, Dr. George H. Miller, Director of Educational Activities, Dr. Paul S. Ferguson, Director of Surveys, and a field staff, helps hospitals to organize graduate training programs to meet the requirements for approval, and also plans to aid physicians returning from service in resuming their training in surgery.

The New York State approved hospitals are:

Albany Hospital, Albany; Brooklyn Eye and Ear Hospital, Cumberland Hospital, House of St. Giles the Cripple, Jewish Hospital, Kings County Hospital, Long Island College and Kings County Division, Long Island College Hospital, and St. John's Hospital, Brooklyn; Buffalo General Hospital, Edward J. Meyer Memorial Hospital, and Millard Fillmore Hospital, Buffalo; Clifton Springs Sanitarium and Clinic, Clifton Springs; Queens General Hospital, Jamaica; Babies' Hospital, Bellevue Hospital, Beth Israel, Flower and Fifth Avenue Hospitals, Goldwater Memorial Hospital, Harlem Eye and Ear Hospital, Hospital for Joint Diseases, Hospital for Special Surgery, Lenox Hill Hospital, Manhattan Eye, Ear, Nose and Throat Hospital, Memorial Hospital for the Treatment of Cancer and Allied Diseases, Metropolitan Hospital, Mount Sinai Hospital, Neurological Institute, New York Eye and Ear Infirmary, New York Hospital, New York Orthopaedic Dispensary and Hospital, New York Post-Graduate Medical School and Hospital, Presbyterian Hospital, St. Luke's Hospital, Sloane Hospital for Women, and Women's Hospital, New York City; Rochester General Hospital, Rochester Municipal Hospital, and Strong Memorial Hospital, Rochester; Grasslands Hospital, Valhalla; and Sea View Hospital, West New Brighton, Staten Island.

LaGuardia Outlines Postwar Hospital Expansion in New York City

MAYOR F. H. LaGuardia announced on November 8 that his postwar blueprint for New York envisages the construction of five new hospitals, the complete remodeling of a sixth, the expansion of present medical research facilities, and the creation of a forensic medical institute.

The Mayor told several hundred registered nurses attending a meeting of the Thirteenth District of the New York State Nurses Association, that New York's twenty-six institutions with 20,000 beds already constituted "the greatest hospital system in the world."

He added:

"When our plans are completed no one will be able to dispute our supremacy in medical education and treatment."

These plans include a large hospital in the Bronx to replace Fordham Hospital, a new hospital in Harlem, a hospital for tropical diseases which will form part of the program to extend the facilities of existing medical research institutes; a custodial hospital for incurable cancer patients to be affiliated with Memorial Hospital, and the completion of Florence Nightingale Hospital for cancer patients, which was interrupted by the war after the foundation had been laid and which "will be a scientific institute connected with Columbia University."

In addition, the Mayor planned "to rebuild entirely Sea View Hospital," at West New Brighton, Staten Island, and "to provide a forensic medical institute to be constructed near Bellevue Hospital."

"This is quite an ambitious program," Mayor LaGuardia remarked, "but I am going to press it and give it a very high priority in our postwar program."

Noting that these new hospitals would create new demands for medical personnel, Mayor LaGuardia expressed confidence that this program, together with his health insurance program, would enable New York to absorb all medical war veterans returning to this area.

Improvements

Mason General Hospital, Brentwood, has opened Edgewood as an annex, increasing the capacity of the hospital, already the Army's largest for the treatment of nervous and mentally ill members of the Army, to more than 3,000 beds. The Edgewood annex consists of seven buildings located on a site of 50 acres, approximately three miles from Brentwood, and two miles from Mason.

Edgewood, like the original buildings at Mason, was constructed by the State of New York, but was not occupied until leased by the Army. The entire construction, including changes now in progress necessary for Army use, and its equipment, has cost approximately $9,500,000. The government's lease on these buildings for hospital use is for the duration of the war.

This annex, which in its main building is thirteen stories high, of fireproof construction, has 700,000 square feet of floor space. It has thirty wards, and a recreation room, kitchen, and mess hall on each

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floor. There is also a central kitchen with connecting mess halls for post personnel.

The staff, under the direction of Col. Cleve C. Odom, commanding officer, is engaged in setting up in the new building all the offices, laboratory, and treatment facilities needed for the care of patients who are returned from the various battle areas. Occupational therapy shops, physical therapy and hydrotherapy rooms have been set up, and a recreation hall and gymnasium are under construction.

All of the advanced reconditioning activities will be housed in the Edgewood annex, including a complete physical education and educational program, and occupational therapy work.*

• • •

As a result of the initiative of Harold C. Welch, business manager of the Onondaga County Tuberculosis Sanatorium, bus service to and from that institution will now be available to people who do not own motor cars. That is a fine achievement. Many parents and friends of patients who have not been able to visit them because of a lack of transportation will now find it possible to see them regularly.

Incidentally, Mr. Welch deserves credit for another beneficent development in connection with the Sanatorium. The Free Treatment Bill which he pushed at Albany has now been written into the statutes. As a result people of limited means can be treated at the Sanatorium with remuneration to the county arranged on the basis of their ability to pay. This is an important forward step, as it makes possible the effective treatment of many for whom there would otherwise probably be little hope.*

• • •

For those whose 1945 destiny entails a stay in Meyer Memorial Hospital, here is a note of cheer: They will find it a vastly pleasanter place than it has been this year.

The improvement program launched there is a comprehensive one, and probably won't be completed until June.

Arrangements have been made to clean the windows once every three months.

The walls are being washed and repainted. In the Communicable Disease Building the walls of the corridors and the rooms are bright with two new colors, some a light brown and buff above and others aquamarine below and buff above. Flowered drapes frame the windows and the patient's lot is made easier by beds which can be adjusted for those able to sit up. The old beds were nonadjustable. The mattresses are new and thick.

In the Children's Building the painting is still in progress, but the new cribs and mattresses have been installed.

The pendant lights are being replaced throughout the hospital with the adjustable, shaded sort. New bedside tables are now being selected and stainless steel equipment will soon be available for all floors.

Down in the kitchen, new ovens, steamers, boilers, and the like were installed and were ready as soon as a transformer arrived late in December. The old food carts are being replaced by electric food carts which will keep the food hot all the way.

New furniture will be ordered for the ward porches, new tables and chairs for the ward dining rooms, and new bedside chairs. Even the hot and cold water faucets are being replaced, at a cost of $7,000.

New linoleum will replace the old, decayed floor covering, the elevator and lighting systems are being modernized, and the fire escapes and balconies repaired. Of the $300,000 allocation, $204,704 has been spent or accounted for by orders and contracts thus far*.

• • •

Capacity of the United States Veterans' Facility at Batavia will be doubled under postwar plans that have been made and $480,000 has been approved by the Appropriations committee of the House of Representatives.

The expansion program will not be started until the end of hostilities, because of the lack of nurses which at present is preventing full use of the present hospital, it was officially announced. The plans provide for additions which will provide a 700-bed facility, it was said.

• • •

Through the generosity of an anonymous friend the Champlain Valley Hospital has acquired a Davidson incubator for the maternity department.

The incubator is said to be the first of its kind manufactured since 1941, and only through an urgent necessity was a priority available. Believed to be the only one of its kind in Northern New York, it has been instrumental as an aid in establishing what is understood to be a world record in raising premature children. At the Lying-In Hospital of the Cornell Medical Center, they raised one infant weighing 17¼ ounces at birth. After forty-one days the baby developed into a normal healthy child. Bellevue Hospital in New York City raised a 19½ ounce infant who spent three months in the incubator. Misericordia Hospital in New York raised triplets whose combined weight was less than eight pounds. They were in the incubator sixty days.

To quote the hospital authorities in Plattsburg, the new incubator is almost human, its mechanics being automatic, yet requiring the presence of an attendant nurse to manipulate the various switches. It is practical to conduct a thorough physical examination of the child while the infant remains inside the incubator. Isolation from sudden temperature changes and protection from air-borne bacteria, both of prime importance in the care of the premature baby, are made possible.

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At the Helm

Lewis W. Douglas, president of the Mutual Life Insurance Company of New York, was elected chairman of the board of managers of Memorial Hospital, New York City, at the regular monthly meeting on December 19, it was announced by Harry Pelham

* Asterisk indicates that item is from a local newspaper.

[Continued on page 326]

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[Continued from page 324]

Robbins, president. Mr. Douglas, seventh member of his family to be connected with the hospital, succeeds his uncle, the late Archibald Douglas, who died in December, 1943.

The interest of the Douglas family in the hospital began in 1912 when Dr. James Douglas, grandfather of the new chairman of the board of managers, became a member of the board and gave $100,000 for clinical research and an x-ray plant. The new chairman is also a trustee of the General Education Board, the Rockefeller Foundation, and the National Industrial Conference Board, Inc.*

• • •

Dr. Francis C. Shaw, now assistant superintendent of Matteawan State Hospital, has been appointed superintendent of Dannemora State Hospital, Dr. John F. McNeil, Matteawan superintendent, has made known.

Dr. McNeil said the appointment was made on November 24 by the State Department of Correction and that Dr. Shaw assumed his duties at Dannemora on December 1.

Naming of a successor to Dr. Shaw as assistant superintendent at Matteawan will await the compiling of a Civil Service list of eligible persons, Dr. McNeil said.

Dr. Shaw succeeds Dr. Blakely R. Webster, who is retiring, as superintendent at Dannemora State Hospital.

Dr. Shaw was appointed to Matteawan as a clinical director in April, 1929. He was advanced to first assistant physician in April, 1931, and he was appointed assistant superintendent at Matteawan in April, 1940.

On November 27 in the attendant's dining room of the Dannemora State Hospital, a testimonial buffet supper was served in honor of Dr. Webster's retirement as director of the institution. An overcapacity group of hospital employees attended.

Dr. Harold E. Connelly, assistant director, was master of ceremonies. He paid tribute to Dr. Webster in an address and presented him with a gift as a token of appreciation

After the gift presentation, Arthur S. Lefeve, senior business assistant to the director, Ralph E. Walker, president of the State Hospital chapter of the Association of State Civil Service Employees of the State of New York, and Thomas J. Devlin, chief attendant, also paid tribute to Dr. Webster.

Dr. Webster graduated from Cornell University Medical College in 1907 and interned at the New York City Hospital (1907–1909), and then took up private practice (1909–1912) in Blairstown, New Jersey, and Pine Bush, New York. He served the State at Matteawan as junior, senior, and temporary first assistant physician. He was appointed first assistant physician at the Dannemora State Hospital, and resigned September 25, 1921, for a position with the Veterans' Administration Facility, New York. He returned to Dannemora (reinstatement) April 28, 1922, and was appointed to the position of superintendent in February, 1935, which title was changed to director on April 1, 1944.*

• • •

Dr. Raymond Maslyn, a graduate of Albany Medical College, has reported for duty as resident physician in medicine and surgery at Ellis Hospital, it was announced by Miss Mary G. McPherson, hospital administrator.

Dr. Maslyn externed at Troy and Albany hospitals and interned at Rochester General Hospital. He has had three years' experience as an assistant biochemist and bacteriologist at Clifton Springs.*

• • •

Dr. Curtis J. Becker, of St. George, who is on the medical staffs of Staten Island Hospital and the Metropolitan Life Insurance Company, has been appointed one of the medical directors of Wagner College, it was announced by Clarence C. Stoughton, president of the college.*

• • •

Members of the Board of Supervisors were asked to authorize the appointment of Supervisor W. Vincent Grady, Beacon, and Harold S. Wright, Clinton, to a special committee to study the possibility of providing communicable disease hospital facilities in Dutchess County, Leonard J. Supple, board chairman, said.

If board approval is given the two supervisors will serve on a committee composed of four members of the Dutchess County Medical Society and two members of the Poughkeepsie Board of Aldermen.

Representatives of the Medical Society on the Committee are Dr. Scott Lord Smith and Dr. James E. McCambridge, both of Poughkeepsie; Dr. Edgar F. Powell, Fishkill; and Dr. L. Edward Cotter, Red Hook. Aldermen Kirchner and Robertson have been named to represent the city on the committee.

Supervisor Supple said he would present the names of Supervisors Wright and Grady to the board for approval at the December 19 meeting.

• • •

William J. Herron and George Frechette were elected to the board of directors of the Alice Hyde Hospital, Malone, at its annual meeting on December 11.

Mr. Herron succeeds H. B. Kelley, who resigned last April to accept appointment as assistant treasurer, in charge of financial matters at the hospital. Mr. Herron's term expires in 1948.

Mr. Frechette succeeds Alfred Brooks, resigned. Mr. Frechette's term expires in 1945.

Dr. P. F. Dalphin, Dr. A. L. Rust, and George B. Bradish, whose terms have expired, were reelected.

George J. Moore was chairman of the nominating committee, of which T. J. McKee and Dr. Joseph Wilson also were members.

Another nominating committee composed of Heyward Irving, D. N. Callander, and E. J. Van Deusen, was appointed to choose a slate to fill vacancies on the executive board. A. W. Hyde and T. J. McKee were elected to succeed themselves. Mr. Herron was named to succeed Mr. Bradish, whose term expired; Mr. Frechette to succeed Mr. Brooks and Paul Cantwell to succeed A. I. Marshall, resigned.

The executive board met at the close of the meeting of the large board and elected the following officers: president, D. N. Callander, vice-president, E. J. Van Deusen, secretary, George Frechette, and treasurer, T. J. McKee. Mr. McKee served as treasurer during the past year and was re-elected. The nominating committee was composed of A. W. Hyde, Dr. Joseph Wilson, and Heyward Irving.*

• • •

[Continued on page 328]

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[Continued from page 326]

Martin H. Wright, of Perry, has been renamed president of the Board of Managers of the Wyoming County Community Hospital in Warsaw. Wright's election to that post was made at a Board meeting on December 6 at the hospital.

Wright became a member of the hospital board in 1930, when the hospital ceased functioning as a private enterprise and came under county-state responsibility. His present term expires in 1948. Harry Brown, of Warsaw, and Wright are the only two original appointed members remaining on the board.

Other officers named are: Dr. L. C. Sierk, of Attica, vice-president, and Harry M. Brown, of Warsaw, secretary.

• • •

Dr. J. A. Gindling was elected president of the Medical Staff of the Geneva General Hospital at the annual staff dinner meeting December 7 at the Belhurst Club.

Dr. Henry Abbott gave a talk at the meeting on contact lenses.

• • •

The resignation of Miss Janet M. Ptolemy, night superintendent of Ellis Hospital, was accepted "with regret" by hospital authorities as of December 1, it was announced on December 7 by Miss Mary G. McPherson, administrator at Ellis.

Miss Ptolemy, a graduate of the Roosevelt Hospital School of Nursing, New York City, will become superintendent of Sharon Hospital, Sharon, Connecticut. She came to Schenectady from Oberlin College, Oberlin, Ohio, where she had served as superintendent of Alden Hospital fourteen years.

Miss Ptolemy will be succeeded by Mrs. Ruth Ingalls, former assistant orthopaedic supervisor at the hospital and a graduate of the Schenectady Hospital Association's School of Nursing at Ellis.

• • •

Dr. A. J. Roach, for the past twelve years superintendent of the Broome County Tuberculosis Hospital, took over the duties of superintendent of the Montgomery Sanatorium on Swart Hill December 1. Dr. Roach is well qualified to serve in this administrative capacity, having had a wide experience in New York, Massachusetts, and Wisconsin.

• • •

Further action on plans to erect a general hospital in Schenectady to be operated by a community of Catholic Sisters has been referred to an executive committee appointed by Most Rev. Edmund F. Gibbons, bishop of the Catholic diocese of Albany. The members of the committee are:

Rev. Michael A. Bianco, pastor of St. Anthony's Church; Rev. Ladislaus E. Guzielek, pastor of St. Adalbert's Church; Very Rev. John J. Finn, VF, pastor of St. Helen's Church; Rev. Francis S. Ren, pastor of St. Mary's Church; Rev. Maxine E. Sarrault, pastor of Sacred Heart Church; Rev. William C. Keane, pastor of St. Luke's Church; Rev. Alphonse Orvidas, pastor of Holy Cross Church; Rev. Florian C. Billy, OMC, pastor of Sts. Cyril and Method Church; Rev. Leo B. Schmidt, pastor of St. Joseph's church; Rev. Edwin Wattson, pastor of St. Joseph's Church, Scotia.

Father Finn has been appointed chairman of this committee, Father Keane is secretary, and the treasurer is Father Schmidt.

• • •

A communication from Dr. Lawrence J. Early, as secretary-treasurer of the Columbia County Medical Society, recommending the names of three county physicians, from which list the Board of Supervisors will appoint one to serve on the Columbia County Board of Health, was referred to the committee after it was read at a meeting of the Supervisors.

Dr. Early's letter stated:

"In accordance with a request of Dr. Cecil L. Schultz, president of the Columbia County Medical Society, I am sending you the names of Dr. F. C Maxon, of Chatham, Dr. Hugh G. Henry, of Germantown, and Dr. C. L. Nichols, of Philmont, for your consideration in appointing a member to fill the vacancy now existing in the Board of Health."

• • •

Miss Thelma Ward, the new superintendent of the Peekskill Hospital, started her duties on December 12 at the hospital, in place of Miss Helen McClymonds, who recently retired because of ill health.

Mrs. Richard Donnelly, assistant superintendent; has been on the job now for several weeks, replacing Miss Ivers, who had resigned to accept a position at Mount Florence.

Miss Ward has had eighteen years' experience, much of it in a supervisory capacity, before coming here.

Miss Ward was graduated from the University of Cincinnati, Ohio. She then entered training in Cincinnati General Hospital, rising to the position of assistant night supervisor of the 1,000-bed hospital.

She then became superintendent of the Harlan (Kentucky) Hospital; superintendent of Woodlawn Hospital at Morberly, Missouri; superintendent of Stephens Clinic Hospital, Welsch, West Virginia; superintendent of Hillcrest Hospital, Pittsfield, Massachusetts; superintendent of nurses at Belmont Hospital, Worcester, Massachusetts; superintendent of Dodge County Hospital, Fremont, Nebraska, and superintendent of St. Peter's Hospital, Helena, Montana.

Miss Ward left a position as director of the 100-bed Portsmouth (Ohio) General Hospital to come to Peekskill.

Miss Ward was selected by the board of directors of Peekskill Hospital after the board had conferred with her and had examined applications from twenty-five others.

Another change in the hospital administration is that Dr. Frank J. Peroni, recently of New Rochelle, has been engaged as house physician, succeeding Dr. Edward Komando, who has gone to Rockland, Massachusetts.*

Newsy Notes

Little Falls chapter of the American Red Cross is organizing a camp and hospital council, headed by Theodore Lyons, former chapter chairman. Rev. J. Harold Thomson is vice-chairman of the council.

The purpose of the new organization is to assist in securing recreational equipment for service camps and government hospitals and to advise local groups

[Continued on page 330]

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[Continued from page 328]

and individuals concerning the needs of the institutions and the regulations governing gifts. At present the council is acting on requests from Rhoads Hospital at Utica.

Those who wish to give articles to the patients of this hospital should consult either the chairman or vice-chairman of the council. The committee will also give assistance in packing and delivering articles and will furnish letters of introduction to those who wish to take gifts to Rhoads. Articles will be forwarded in the name of the donor.

Chairman Lyons said today that the committee will be kept informed by the hospital as to articles needed by patients. The following is a list of those which will be most useful at Rhoads at the present time:

Cigarettes, cigars, shaving kits, khaki socks and knitted gloves, white linen handkerchiefs, small picture frames, writing kits, mechanical pencils, radios, recording machine, afghans, ditty bags, cast socks, sweaters. No home-made candies or cookies can be accepted.*

* * *

The medical staff of Veterans' Memorial Hospital of Ellenville sponsored a meeting for physicians, dentists, nurses, and pharmacists of the area at the Wayside Inn on December 5. Dr. R. C. Arnold, surgeon of the U. S. Public Health Service and director of the venereal disease research laboratory of the U.S. Marine Hospital at Staten Island, gave a very interesting talk on penicillin therapy in venereal diseases as well as in other diseases. The lecture was provided by the Council Committee of Public Health and Education of the Medical Society of the State of New York. Following the meeting movie shorts on popular health topics were shown and refreshments were served. Dr. John Weiss acted as chairman and made the arrangements for the program.

* * *

Preliminary plans for the construction of the proposed Columbia Memorial Hospital were disclosed on December 11 by L. P. Hover, Superintendent of Highways and member of the Building Committee authorized by the Board of Trustees of Hudson City Hospital to undertake all details of financing and building, at a meeting of the Rotary Club at the General Worth Hotel. The new hospital, Mr. Hover said, which has been conceived as a memorial to those who have served in all the wars of the country, will occupy a site on the grounds of the present Hudson City Hospital, which it will replace.

"There is no question of the need for the new hospital," the speaker declared. "In recent years, the Hudson City Hospital has been forced to operate far beyond practical capacity, as the result of the steadily increasing demands for its services. The record shows that more than 4,000 persons were served by this hospital during the past year. It is a matter of vital concern to every public-spirited citizen that there be provided modern, efficient health protection commensurate with the needs of our families and children."

To finance the building of the new hospital, which will cost approximately $1,250,000, a public appeal for funds will be made sometime in 1945. It is expected that considerable industrial and business support will be forthcoming.

Expressing the hope that citizens of Columbia County will consider the new hospital not the project of the Building Committee alone, but a postwar plan of prime concern to their own welfare, Mr. Hover concluded by characterizing the hospital as "Columbia's strategic medical center for the service of all."

Members of the Building Committee include Herman F. Zorn, chairman; William H. Graves, president of the Board of Trustees of the Hudson City Hospital; Mrs. George C. Inman, secretary; J. Wessel Ten Broeck, treasurer; James E. Leath, chairman of publicity; Dr. B. Caldwell Esselstyn, staff representative; Mrs. John S. Williams, co-chairman of solicitations outside Columbia County; L. Proseus Hover, chairman of solicitations in Hudson and Columbia County; Dr. R. P. Harris, chief of staff of the Hudson City Hospital, and Dr. John L. Edwards, staff representative.*

* * *

More than a majority of the thirty-eight attending and consulting members of the staff of General Hospital, Utica, on December 12 went on record in opposition to closing the hospital and urged its continuance.

Dr. Gordon A. Holden, retiring president of the staff, said the staff members were of the opinion that the burden of hospital beds in private hospitals were such that they could see no possibility for the care of the poor in other hospitals.

Dr. A. R. Hatfield, Jr., was elected president of the staff at the annual meeting, succeeding Dr. Holden. Others elected were: vice-president, Dr. A. Graham Davis; secretary-treasurer, Dr. Robert J. MacCallum.*

* * *

The Pierce Creek 4-H Club sang Christmas carols to children confined in Triple Cities hospitals as a part of the organization's singing project.*

* * *

The endorsement by heads of the Ossining War Council and the men's and women's veteran organizations of Ossining of the suggestion made by Timothy F. Walsh that Croton Point be selected as the site for a rehabilitation hospital for sick and wounded U.S. servicemen, is now under consideration by Brigadier-General Frank T. Hines, chairman, Federal Board of Hospitalization, Washington, D.C.*

* * *

Total expenditures for the year at the Oswego County Sanatorium for care and treatment of tuberculosis patients were $107,788.99, leaving a balance of $11,873.38, according to the report of the director, Dr. Harwood L. Hollis, and the board of managers of the institution, presented to the Board of Supervisors on December 7.

A total of 138 patients were treated, of whom 8 were discharged as arrested and 33 sent home as improved. Sixty patients remained in the sanatorium October 31, 1944.

In the period from 1913 to 1944, inclusive, 3,945 were treated at the sanatorium, of which 1,056 were discharged as arrested cases and 1,041 discharged as improved.

Dr. Hollis stated that the eradication program in Oswego county has contributed greatly to the lowering of the death rate and morbidity of this disease.

[Continued on page 332]

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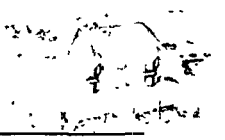
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[Continued from page 330]

He added that while the tuberculosis problem in this area still remained a challenge "to our efforts, satisfactory progress is being made."

"There is much yet to be accomplished and we must continue work on a greater scale if we are to bring the destruction caused by this disease to an irreducible minimum," Dr. Hollis declares.

Reference is made in the report to the action of the Oswego County Health Association in appointing a full-time worker, Miss Virginia Simons, in carrying out the educational program of the antituberculosis campaign. The report of Miss Lucy Vincent, R.N., is also included in the report presented.

The board of managers is made up of Dr. L. D. Pulsifer, president; Dr. H. S. Albertson, F. M. Daley, Frank C. Ash, and Hadwen C. Fuller.*

• • •

Brooklyn's Israel Zion Hospital celebrated a quarter century of service to the borough at a dinner held December 3 at the Waldorf-Astoria Hotel. More than 1,500 persons were expected to attend, and the principal speaker was Representative Emanuel Celler.

Contributions made by dinner guests went toward the current $500,000 campaign to expand the hospital's facilities. According to Hyman Pertnof, chairman of the arrangements committee, a donation of $100,000 was pledged by a New York business man.*

• • •

Receipt of a grant of $4,900 from the John and Mary R. Markle Foundation for a specific problem in research in the radiobiologic laboratory now being constructed at the Long Island College of Medicine was announced on December 9 by Dr. A. Loomis Bell, professor of clinical radiology at the college, and head of the x-ray division of Long Island College Hospital.

As part of the $50,000 development of new laboratories at the college, the fifth floor of the Hoagland Laboratory Building has been converted into the new radiobiologic laboratory.

Dr. Friedrich P. Ellinger, research associate of the department of radiology, has been assigned to the new project designed to increase the efficacy of x-ray treatment in malignant and nonmalignant diseases by the combined use of radiation and drugs. Radiotherapeutic equipment in the department of radiology at the hospital will be used.

• • •

The monthly meeting of the medical staff of Memorial Hospital, Catskill, was held on December 1 at the hospital, when Dr. E. A. Jacobs, roentgenologist at the hospital, presented a paper on x-ray work. Following the meeting a venison dinner was enjoyed.

• • •

The annual meeting of Dansville General Hospital was held on December 6. William J. Maloney, vice-president, called the meeting to order. Members elected Kenneth Plough as chairman and Mrs. Ethel Shepard secretary of the meeting.

James Blum, speaking for Dr. R. J. Maichle, chairman of the house and grounds committee, summarized improvements made during the year including the equipment of a new x-ray room which may be used for emergency operations.*

• • •

Arrangements for the sixth blood donor clinic held on December 8 at Physicians Hospital, Plattsburg, were made by Mrs. Ada H. Rogers, chairman of the Clinton County Chapter of the American Red Cross.*

• • •

A new set of bylaws which provide for several new features in the management of Oswego Hospital were unanimously adopted at a special meeting of the Oswego Hospital Corporation on December 7.

Briefly, the new bylaws provide for a new official to be "director" of the management of the hospital, with the superintendent of nurses and the dietitian being responsible to the director. Creation of a medical staff for the institution is also an important new feature.

It is further provided in the new regulations that any person who contributed $5 or more to the support of the hospital or $25 to the United War Fund or Community Chest and who files a certificate to this effect shall be a member of the Oswego Hospital Corporation and entitled to vote at its meetings.*

• • •

A proposed $31,800 increase of the Grasslands Hospital budget was urged by the Westchester League of Women Voters, the Westchester chapter of the Council of Jewish Women, and the Westchester County Medical Society on grounds there has been a dangerous drop in the hospital's efficiency through payment of low wages.

• • •

Flushing Hospital authorities are awaiting Borough President Burke's reaction to their proposal to widen Parsons Boulevard in front of the hospital.

The proposed widening, designed to eliminate traffic hazards at that point, was submitted to the borough president by Charles U. Powell, Queens topographic engineer, who drew up plans for the project.

It is pointed out that one favorable aspect of the program, which the hospital's board of trustees has fully approved, is the fact that it will not necessitate assessments against private properties in the vicinity as only city and hospital property would be involved in it.*

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(By County Societies)

Supplementary List*

Kings County

Donat, Theodore L. (Lt.)
Egbert, John H.
Levine, Benjamin S. (Capt.)
Teicher, Ira (Capt.)
Vivona, James I.

Nassau County

Fair, George L. (Lt. Cmdr.)
Stelter, John H. (Lt.)

New York County

Cortes, Noel J.
Kien, George J. (Lt.)
Porter, Louis (Lt.)
Quadfasel, F. A. (Capt.)
Richli, William C.
Trevaskis, John H.
Vassos, George A., Jr.

Queens County

Richard, Donat R.

Westchester County

Twaddell, Donald N. (Lt.)

* This list is the twenty-ninth supplement to the Honor Roll published in the December 15, 1942, issue. Other supplements appeared in the January 1, January 15, February 15, March 1, March 15, April 15, June 1, July 1, August 1, September 1, October 15, November 15, December 15, 1943, January 15, February 1, February 15, March 1, May 1, May 15, June 1, July 1, July 15, August 1, September 1, October 1, November 1, December 1, 1944, and January 1, 1945, issues.—*Editor*

BENJAMIN WATERHOUSE (1754–1846) AND THE INTRODUCTION OF VACCINATION INTO AMERICA

After the publication in 1798 of Edward Jenner's great monograph on the prevention of smallpox by vaccination with cowpox, the practice of vaccination was taken up very quickly in most civilized countries of the world. Before the turn of the century over 30,000 persons two weeks old and upwards had been successfully inoculated with cowpox. The honor of introducing vaccination into America fell to Dr. Benjamin Waterhouse, the first Professor of Physic at Harvard. Fate as well as the doctor's own mental alertness was instrumental in determining the part he was to play in the control of one of the worst scourges afflicting mankind. He writes: "In the beginning of the year 1799, I received from my friend Dr. Lettsom, of London, a copy of Dr. Edward Jenner's 'Inquiry into the causes and effects of the Variolae Vaccinae or Cow-Pox'; a disease totally unknown in this quarter of the world. On perusing this work I was struck with the unspeakable advantages that might accrue to this country, and indeed to the human race at large, from the discovery of a mild distemper that would ever after secure the constitution from that terrible scourge the small-pox." Desirous of immediately communicating his knowledge of this great discovery to the public as well as to his medical brethren, Waterhouse published a brief account of it in a Boston newspaper, the *Columbian Sentinel*, for March 12, 1799, under the title "Something Curious in the Medical Line."

From Waterhouse we learn that "This publication shared the fate of most others on new discoveries. A few received it as a very important discovery; highly interesting to humanity; some doubted it; others observed that wise and prudent conduct which allows them to condemn or applaud as the event might prove; while a greater number absolutely ridiculed it as one of those medical whims which arise today and tomorrow are no more." Because of the disinclination of the public and the profession to accept the self-evident truth of vaccination, Waterhouse found it necessary to "repeat in America the experiments performed on the other side of the Atlantic." After several unsuccessful attempts to obtain living virus he received in June, 1800, some matter from Dr. John Haygarth, of Bath, with which he successfully vaccinated his own children. After their recovery from this distemper they were publicly inoculated with smallpox but failed to contract the disease. Following these confirmatory experiments he published his first pamphlet on the subject, "A Prospect of Exterminating the Small-Pox," which has now become one of the rarities of medical Americana. A copy of the pamphlet was sent to Thomas Jefferson, then Vice-President and a candidate for the Presidency, who received it enthusiastically and with Dr. Waterhouse's cooperation quickly introduced the practice into Washington and Virginia and subsequently into Philadelphia and other parts of the country. Although there was, because of petty jealousy, much opposition to Waterhouse personally in his attempt to spread the practice of vaccination, Jefferson had sufficient influence and prestige to insure its general acceptance.

That smallpox holds little terror for the world today is due to Edward Jenner's convincing demonstration of the efficacy of cowpox in its prevention. That the blessings of vaccination came so early to the United States of America is due almost entirely to the labors of two men—Benjamin Waterhouse, who introduced it, and Thomas Jefferson, who was largely responsible for its rapid spread and acceptance.—*J. C. Trent, M.D., Thumbnail Sketches of Eminent Physicians, North Carolina M. J., Aug., 1944*

Books

Books for review should be sent to the Book Review Department at 1313 Bedford Avenue Brooklyn N Y Acknowledgment of receipt will be made in these columns and deemed sufficient notification Selection for review will be based on merit and interest to our readers

REVIEWED

Fertility in Men A Clinical Study of the Causes, Diagnosis, and Treatment of Impaired Fertility in Men By Robert Sherman Hotchkiss M D Octavo of 216 pages, illustrated Philadelphia, J B Lippincott Co , 1944 Cloth $3 50

Fertility in Women Causes, Diagnosis, and Treatment of Impaired Fertility. By Samuel L Siegler, M D Octavo of 450 pages illustrated Philadelphia, J B Lippincott Co , 1944 Cloth, $4 50 In attractive slip case with preceding book, $8 00

Both volumes, issued simultaneously, have been written by well trained and experienced men in their respective fields There has been a dire need for such a composite review With the passing years the responsibility of either one or both parties in a barren marriage has been shown to require a systematic and a scientific approach to the underlying causes

The subject matter is thoroughly covered All scientific and clinical methods at our disposal in investigating the degree of fertility in either party are described Corrective methods which may be instituted are
tained in m

These two b
specialist and

M Glass

The Gastro-Intestinal Tract A Handbook of Roentgen Diagnosis By Fred Jenner Hodges, M D Octavo of 320 pages, illustrated Chicago, Year Book Publishers, 1944 Cloth, $5 50

This book fulfills every desire of those interested in gastro-enterology and its interpretation by x-ray for a concise and beautifully illustrated volume
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valuable
eon, specialist, or general practitioner

B M Bernstein

The Diabetic Life Its Control by Dietand Insulin By R D Lawrence, M D Thirteenth edition with wartime supplement Duodecimo of 228 pages, illustrated Philadelphia, Blakiston Co , 1944 Cloth, $4 00

This little volume has already gone into the thirteenth edition, which in itself speaks for the value of the book It is a manual on the treatment of diabetes primarily intended for the patient and contains information which should prove of value to the practicing physician

It is up to date, authoritative, and practical

William S Collens

Deafness and the Deaf in the United States By Harry Best Octavo of 675 pages New York, Macmillan Co , 1943 Cloth, $6 50

The author has prepared this volume from the standpoint of the social economist The subject matter is well arranged and contains a number of tables and statistical surveys This is really an encyclopedia on the subject of deafness and, as such, is a book that should be read not only by otologists but also by economists, public officials, and public health officers The subject of deafness cannot just be set aside and dispensed with as an infirmity or simply as a handicap The author brings these facts out forcefully and discusses them completely in chapters that are well indexed so that the desired information can be readily found The otologist would do well to familiarize himself with the subject matter in this book, for in it he will find information which will be most helpful in assisting him to better understand the hard of hearing and the deaf, and with this newer knowledge, he will be better able to advise and guide those patients who, in the past, have not been adequately handled by the average otologist

Samuel Zwerling

Contact Lens Technique A Concise and Comprehensive Textbook for Practitioners By L Lester Beacher, O D , Honorary M D Third edition, thoroughly revised Octavo of 128 pages, illustrated New York, New York Contact Lens Research Laboratories, 1944 Cloth, $3 50

This is a primer of contact lens technic with the accent on practical use

It is well illustrated and will serve very well as a stepping stone to the more detailed works, like that of Obrig

Ralph I Lloyd

The Treatment of Peptic Ulcer. By George J Heuer, M D Octavo of 118 pages Philadelphia, J B Lippincott Co , 1944 Cloth, $3 00

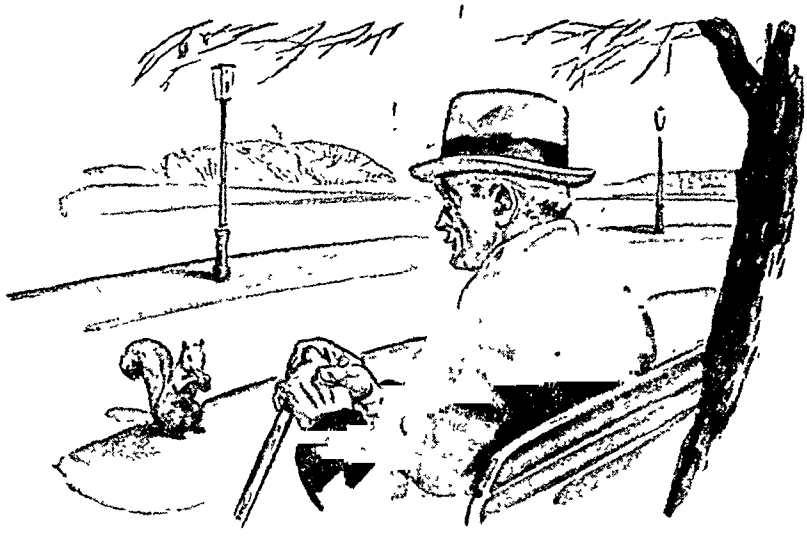
This is an excellent monograph on the subject of peptic ulcer, based on ten years' experience at the New York Hospital The logical arrangement of the subject matter and the didactic comments following the discussion of the various types of treatment add much to the readability and to the informative value of this report The authors have included a bibliography of literature referred to in the text and an index This monograph will be of interest to the internist and the surgeon

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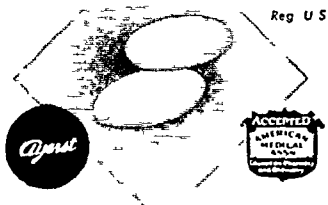
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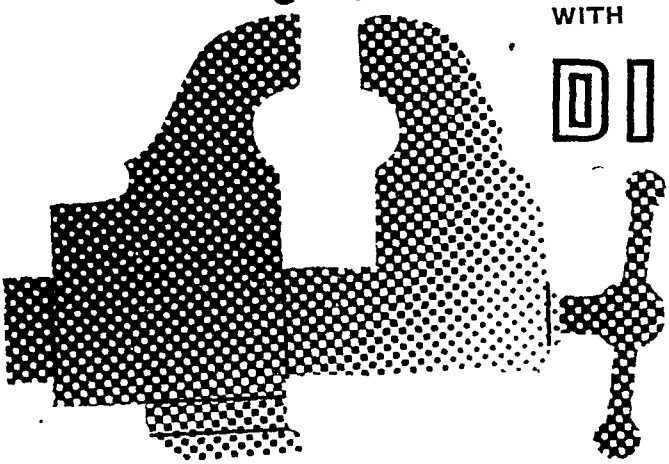
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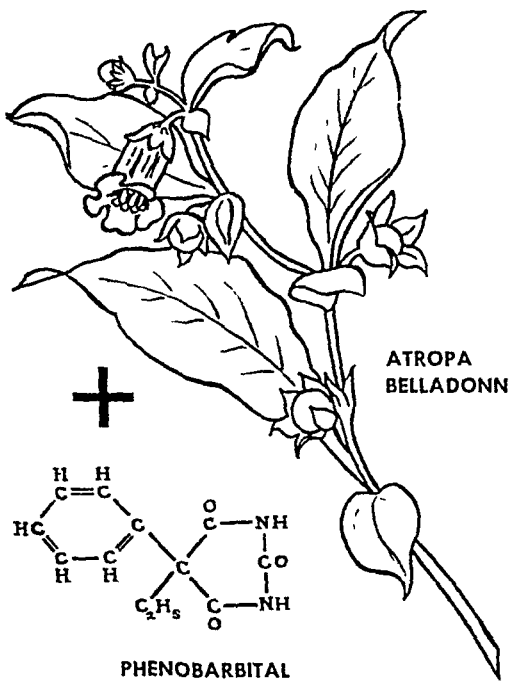
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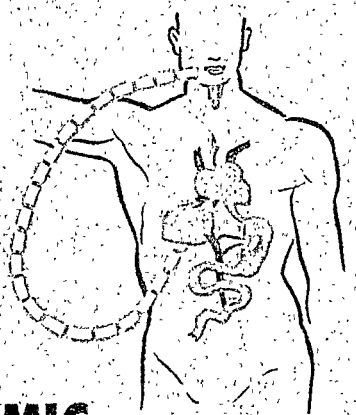
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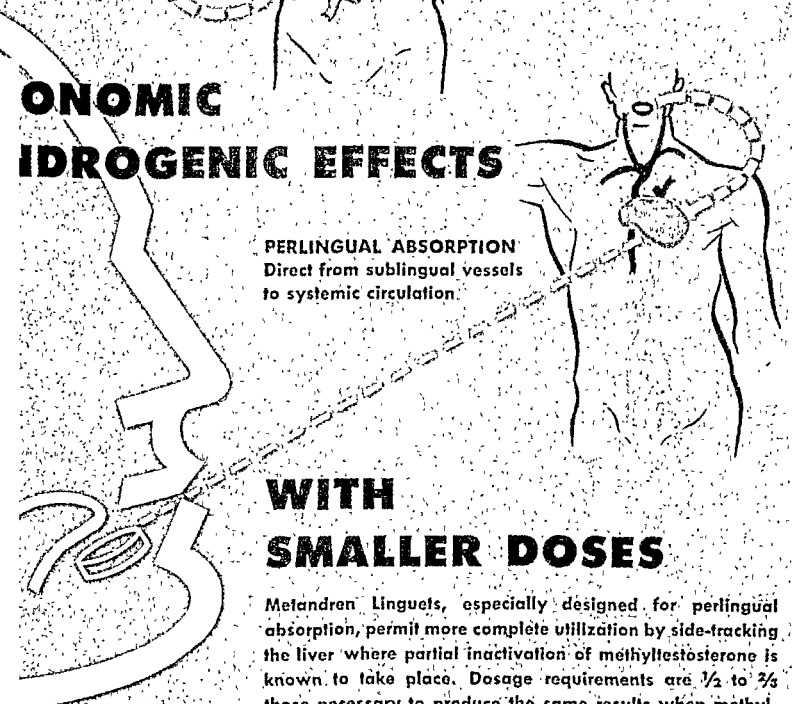
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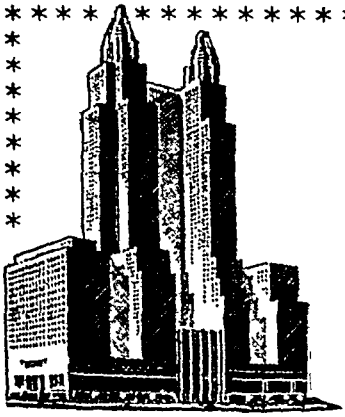
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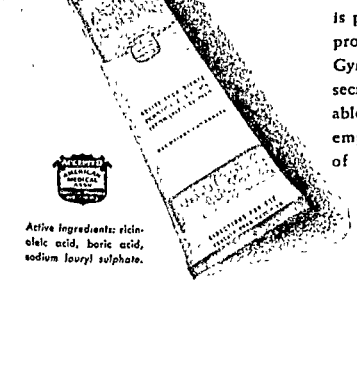


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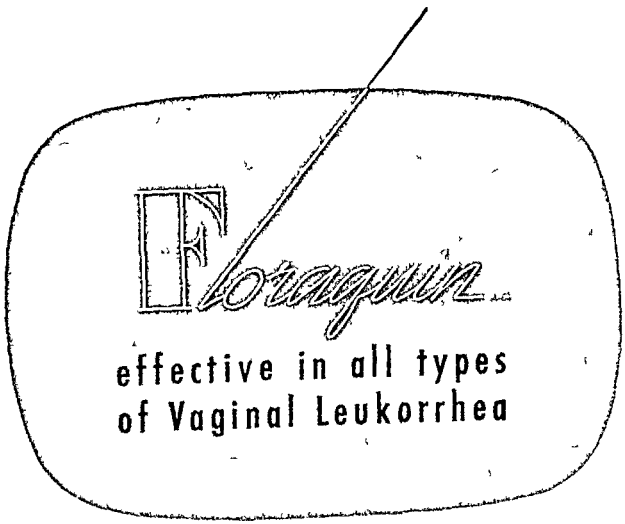


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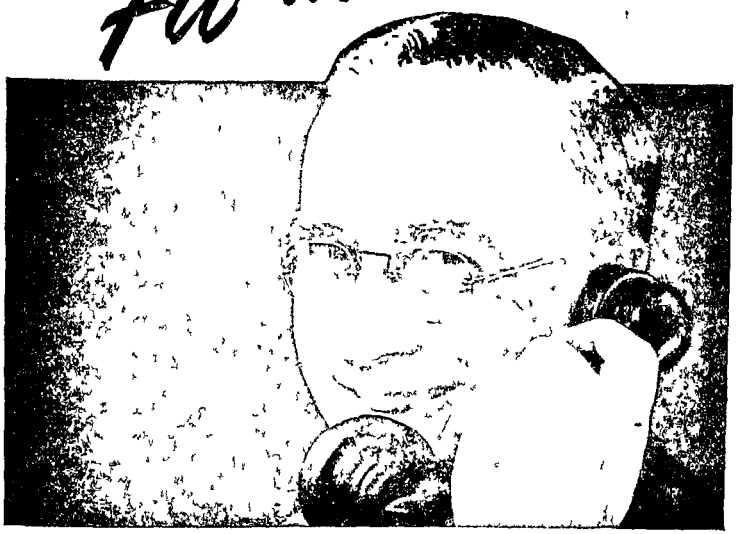
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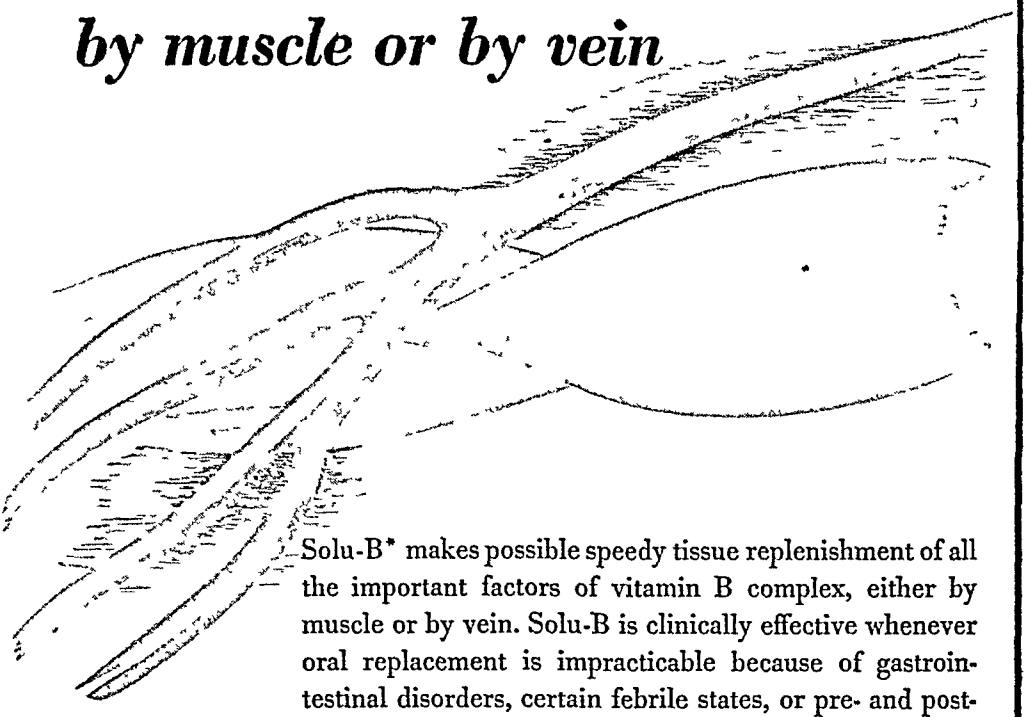
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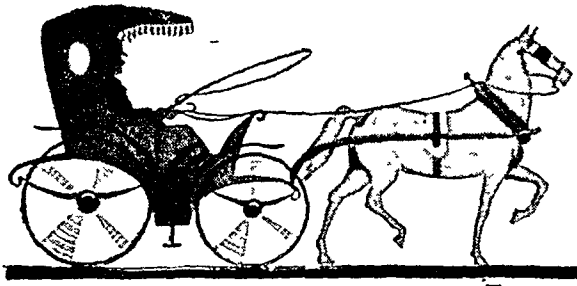
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1. Tenenberg, D. J. et al.: Proc. Soc. Exper. Biol. & Med., *51*:247-249 (Nov.) 1942.
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6. Ashley, R. L.: Trans. Am. Acad. Ophth., *46*:257-261 (July-Aug.) 1942.





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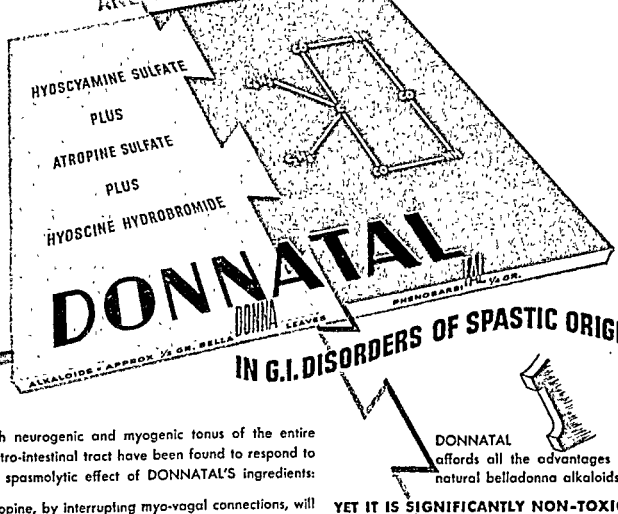
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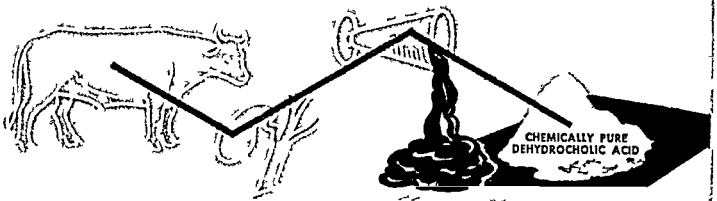
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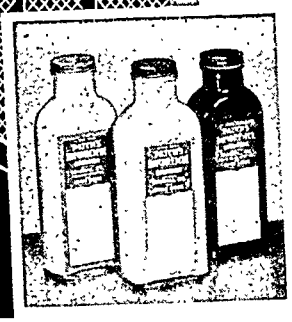
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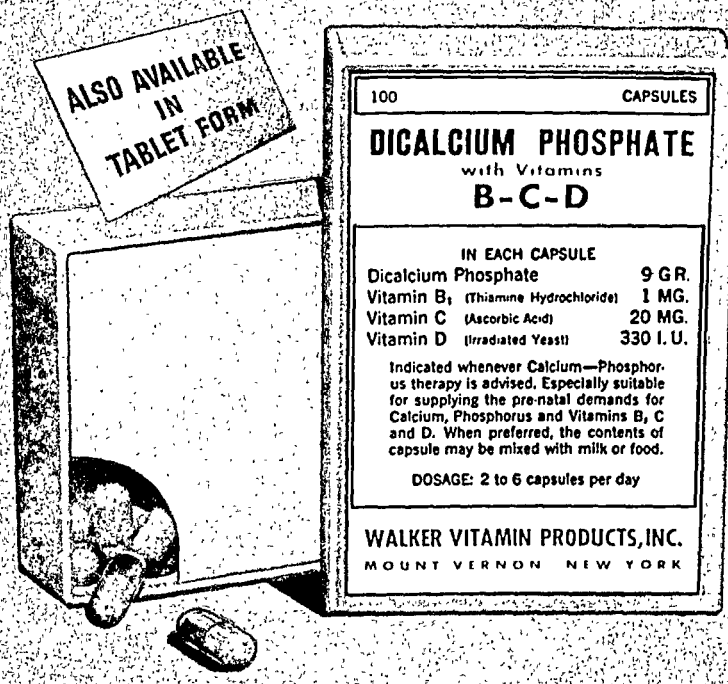
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Nicotinamide (niacinamide)	25 mg.
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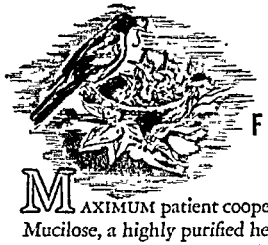
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*Gray, H and Tainter, M L, *Am J Digest Dis* 8 130, 1941.

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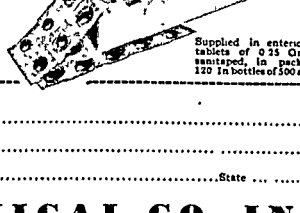
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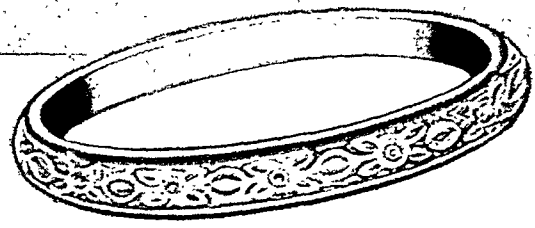
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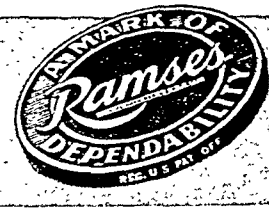
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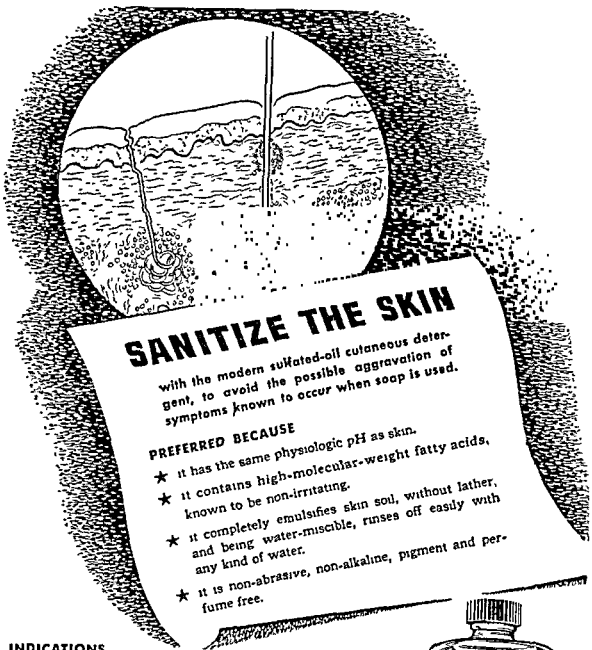


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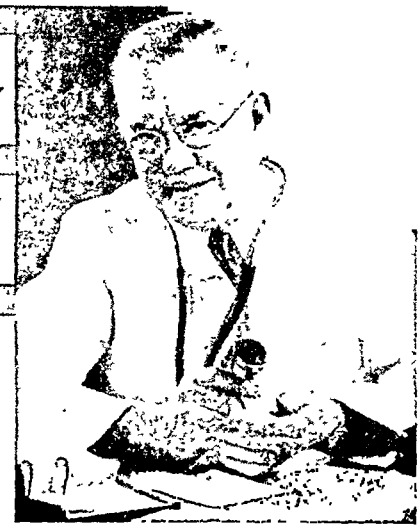
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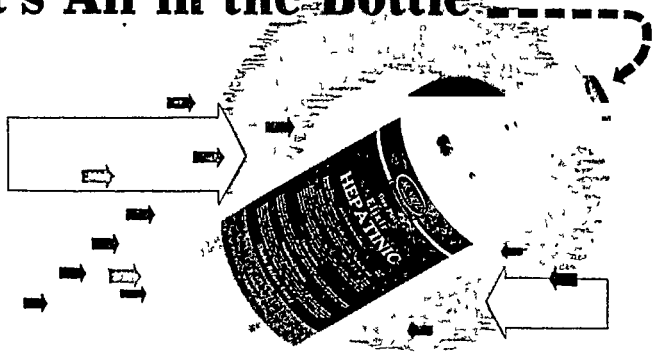
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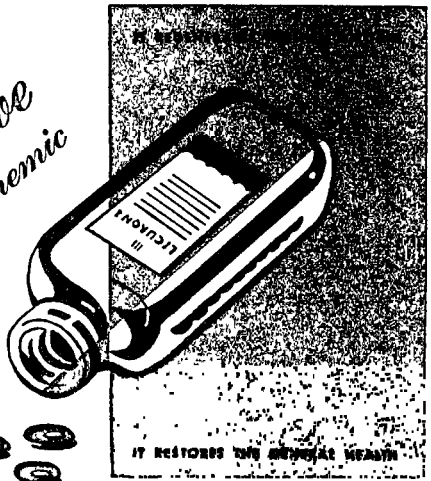


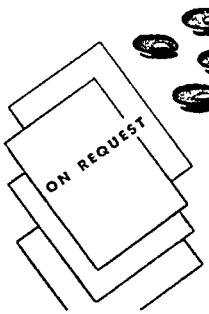
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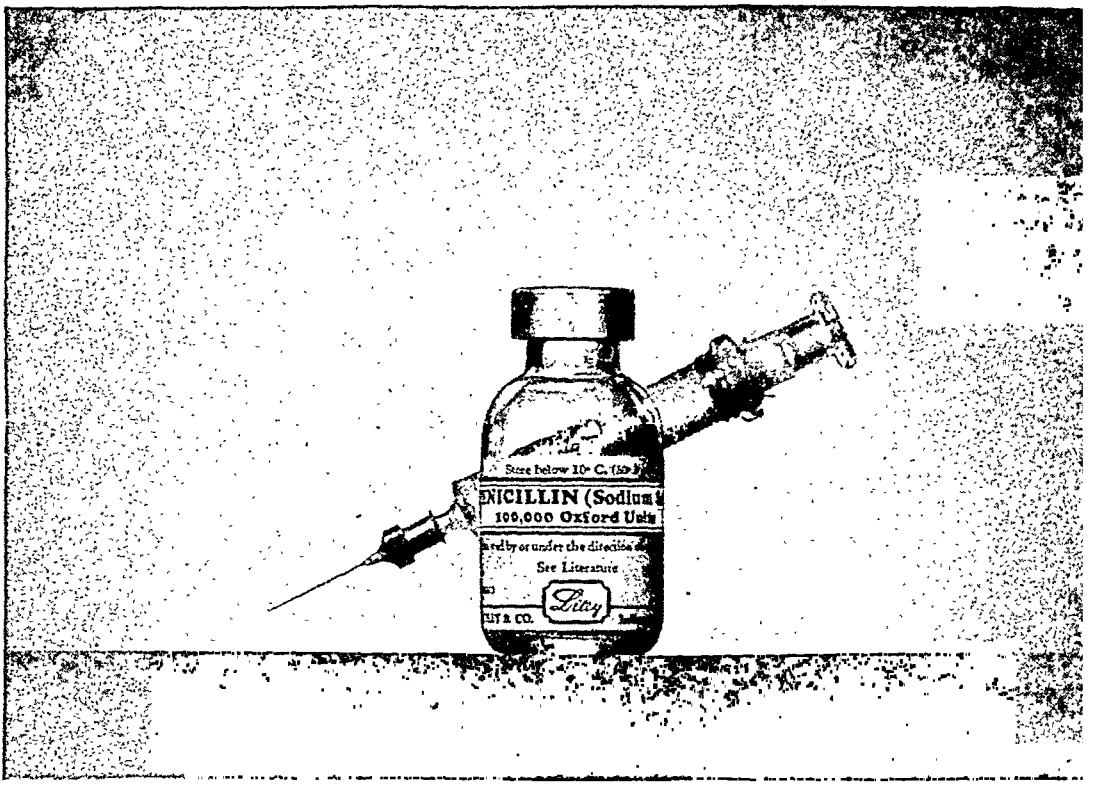
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VOLUME 45 FEBRUARY 15, 1945 NUMBER 4

Editorial

Nurses for the Armed Forces, III

This JOURNAL is doing what it can on behalf of the physicians of the State to assist in the procurement of needed nurses for the armed forces. No request has been made from any governmental source for such assistance from us or from any of the state medical journals, as far as we are aware. Yet these medical journals are read by the physicians who, with the civilian hospitals and the patients, are being blamed for the failure of the nurse procurement program.

Perhaps it is considered by higher authority that this problem is simply none of our business. The fact remains, however, that we write for the information of 18,000 physicians of this State twice a month, and we consider the welfare of the wounded of the armed forces of sufficient moment to attempt to get them, asked or not, the nursing help they need while at the same time recognizing the necessity for the maintenance of a proper balance of nursing care in our civilian hospitals and industries.

Assistance from the physicians of the State in the nurse procurement program can be had and will be unfailingly given only if the doctors are continuously, and, preferably, truthfully informed as far as this can be done. They want to know:

1. Whether the Army and Navy nurse personnel is being as conservatively utilized as possible?

2. How much assistance is being provided for nurses already in service by (*a*) medical corpsmen and (*b*) ward attendants, either civilian employees or draftees inducted on a limited service basis?

3. To what extent male nurses are being utilized? Why they are not commissioned, if necessary? Are they being utilized in forward areas with high casualty expectancy, and if not why not?

4. What use is contemplated for the physically acceptable number of the 9,000 negro nurses who are said to be willing and even eager to serve their country? Is there no place for them?

5. Why are U.S. Cadet Nurse Corps prospects informed on page 4 of the *Fact Sheet* that "In return for advantages received through the Corps, *Cadet Nurses promise* that, health permitting, they will remain in essential nursing for the duration of the war. The choice of which essential

service is theirs. *They are not required to pledge themselves* to military service."?

6. What use, if any, is to be made, if only for the present emergency, of 4 F's, as auxiliary nursing aides or ward attendants? The. J.A.M.A.[1] shows upwards of 200,000 of these as rejected for "*eyes*" alone, and over 100,000 for "*ears*" alone, and over 50,000 for "*under-*" or "*overweight.*" How about some of the slightly under 250,000 who were rejected for *hernias?*

Doctors (and nurses) read the newspapers, also. They may have read[2] an article by Hanson W. Baldwin, from which we quote:

"The suggested draft of nurses for the fighting services should be considered in relation to personnel problems within as well as outside the services.

"Some Army doctors feel that some hospitals in this country, especially Air Forces hospitals, may actually be overstaffed with nurses and that if the Army distributed available nurses somewhat better, there would be more nurses overseas and in hospitals where they are most needed.

"But one of the main problems of the Army Nurse Corps is a problem of morale. The nurses are well aware of the glamour and the publicity and the increased rank and prerogatives given to or acquired by the Wacs. They resent what seems to them subordination of the Nurse Corps to the Wacs. The ranks of captains, majors, or even of first lieutenants are few and far between among the nurses overseas, yet the nurses are usually much farther forward, run greater risks, and have far harder work, requiring far longer professional study than do most of the Wacs who may be captains, majors, or even lieutenant colonels. These inequities are a part of the Army's nurse problem."

How shall we answer that one?

Or they may have read[3] Dorothy D. Bromley, who reports a joint interview of twenty registered nurses. They held, and we incline to agree:

"that a draft of nurses would be unfair discrimination if it were not coupled with a national selective service act applicable to all women."

Also:

"It was felt that more nurses should be taken for limited service in this country. A nurse of 39 who admits she is not doing essential work as a doctor's office nurse asked for such service because she is the only child of a father who is 78 and an ill mother. She was refused, as limited service is only granted for medical reasons.

"All of the group thought the 1,200 graduate members of the Cadet Nurse Corps, who have received part of their training at government expense, and the 25,000 who will graduate next spring, should be obliged to enter military service before there is a draft.

"While there was a boom in nurse recruiting last week following the President's speech calling for a draft of nurses, members of this group resented as 'unfair' the proposal to draft them into the Army as privates. They argued that more nurses would enter the services if they were assured they would not have to take care of soldiers' wives in military hospitals—a kind of duty that has disgruntled more than a few Army nurses they know. . . ..

"There was general criticism of Red Cross and military red tape. . . ..

"The group argued, and with logic, that the Army and Navy would have more nurses today if they relaxed their rigid rules. They told of a nurse turned down by the Navy because she 'had an uneven bite,' and another because 'she had two teeth missing.' Several were said to have been rejected by the Army because they were 'seven-eighths of an inch too short,' or were as little as five pounds underweight. . . ..

"An older woman made the point that the fear of joblessness after the war haunts nurses, who are not covered by social security. That is the reason nurses with good jobs are inclined to hold on to them. . . . ."

We submit that there is much that needs clarification, perhaps more that needs revision of policy and practice if the needed nurses are to be obtained for the armed forces. Doctors will be glad to help in any way they can. It would seem that much could be done short of drafting nurses, and we hope it will be done. Drafting should be the last resort.

We demand a *National Service Act* in accordance with accepted principles of constitutional government. We still have a Republic. We propose to keep it.

---

[1] Vol. 127, No. 1, p. 37.
[2] N. Y. *Times*, January 10, 1945.
[3] N. Y. *Herald Tribune*, January 14, 1945, p. 6, section II.

Adequate Diet III: Mineral Elements

Largely on the basis of animal experiments, it appears that fourteen different mineral elements are to be regarded as essential dietary constituents. The body contains twice that many. It is rather amazing that such elements as lead, bromine, and aluminum have been detected in the tissues even of the newborn. Most of the body minerals which are not now classed as essential are undoubtedly present merely because they occur in the food eaten and are not completely excreted. It is probable that some of them may play a useful role which is as yet unknown.

Fortunately, in selecting diets we need give attention to only a few of the fourteen essential minerals because most of them are always supplied adequately in whatever combination of foods is chosen. Calcium, phosphorus, iron, and iodine are the ones needing special consideration.

Calcium and phosphorus are the two minerals which are required in largest amounts. They play their major role, along with vitamin D, in bone development during growth and in pregnancy, and for lactation. They are also needed throughout life to maintain the bony structures, and for many other physiologic processes. Special attention is required in food selection in order that the dietary need for calcium may be met. A liberal intake of milk is by far the most effective way of meeting this need. Milk is an excellent source of phosphorus as well. Diets which are adequate in protein and calcium can generally be relied upon to furnish enough phosphorus also.

Common salt, in the amounts habitually consumed, supplies far more than is needed of the essential elements, sodium and chlorine. The usual diet also contains adequate amounts of potassium. This appears to be true for magnesium as well. The recent report of Miller,[1] however, describing a case of tetany in which blood magnesium was low and in which magnesium feeding resulted in a rise in the blood level and a relief from the symptoms, suggests that under certain conditions this element may be deficient. Magnesium tetany occurs in practice with certain farm animals.

The adult requirement for iodine is about 0.15 to 0.30 mg. daily. During adolescence and pregnancy, the requirement is slightly higher and of special importance. People living near the seacoast, and in certain other areas where the soil is rich in iodine, obtain this requirement from their food and water supply. In other areas, where the soil is depleted of iodine, goiter is often endemic and the need for supplemental iodine in the diet is well understood. There have been exponents of the idea of adding iodine to the drinking water. By this method the adolescent received sufficient iodine to prevent colloid goiter, but as the physiology of the thyroid gland became better known, it was found that some thyroid disturbances in adults were accentuated by the increase in iodine intake. For this reason, adding iodine to drinking water has been largely discontinued in favor of supplementing the individual's iodine need. Thus the use of iodized salt, which contains about 0.01 per cent of potassium iodide, has become more extensive.

While it is not difficult to select a diet adequate in iron, it is clear that many diets are deficient in this element at times when the need is greatest—namely, during growth and pregnancy. Although the red corpuscles are being formed and destroyed throughout life, the iron of the broken-down hemoglobin is almost entirely reutilized. Thus, aside from losses in menstruation and hemorrhage, the need for dietary iron is small in the case of the adult. About one-tenth as much copper as iron is required to assist hemoglobin formation. No special attention seems needed to assure an adequate supply of copper in the diet.

Sulfur is an essential constituent of body proteins, but to serve this purpose it must be supplied in the diet in the sulfur-containing amino acids or in related organic combinations. Thus, inorganic sulfur as such is valueless and needs no consideration.

Fluorine has long been thought of as a harmful rather than a useful element because it is found in the water supplies of certain areas in sufficient amounts to cause mottled enamel, and even to injure tooth

and bone structure. But this element is a constant, and presumably normal, constituent of the teeth and bones, and evidence is accumulating that a certain minimum level of intake may be actually beneficial in retarding the incidence of dental caries. This evidence has come from epidemiologic studies. Arnold and associates[2] found, for example, that there was three times as much caries in Quincy, Illinois, where the water supply contained 0.2 p.p.m. of fluorine as in Galesburg, Illinois, where the level was 1.8 p.p.m. Other reports, such as the one by Knutson and Armstrong,[3] indicate that the topical application of fluorine lowers the incidence of caries. They suggest a desirable level of 1 p.p.m. of fluorine in the water supply, and state that there is no evidence that this level is harmful or causes discoloration. Smith and Smith[4] have reported, however, that levels of fluorine which seem to lessen caries early in life cause a much more rapid breakdown of the teeth later. Until longer-time observations are made, it would seem wise to follow a conservative course in connection with proposals for stepping up the level of fluorine intake in any area.

Manganese, zinc, and cobalt, along with copper, which has previously been discussed, are generally classed as "trace elements" because they are needed by the body in such minute amounts. These elements have received little or no attention in the case of man, because it has been assumed that the diet always contains enough to meet any needs. It has recently been found that a lack of manganese is responsible for serious abnormalities of bone growth in chickens. A deficiency of cobalt has been responsible for the deaths of hundreds of thousands of grazing animals in various parts of the world.

As little as one-tenth of a milligram of cobalt, an amount which could be held on the end of a pin, makes the difference between life and death in a sheep. These facts indicate the outstanding significance in animal nutrition of some of these elements which have been little studied. It seems that we should give more attention to the trace elements in human nutrition. Certainly there are no widespread acute deficiencies such as have been noted in farm animals grazing on certain soils, but there may be subacute troubles which have escaped notice and which continue to impair health efficiency, as has recently been found true for some of the vitamins.

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The Annual Meeting Canceled

On January 11, as a contribution to the more vigorous prosecution of the war, the Council of the Medical Society of the State of New York, in response to the government's request for cooperation in lightening the load on the Nation's transportation system, canceled its annual meeting, scheduled to be held at Buffalo, New York, April 30–May 3. The meeting of the House of Delegates will be held, unless further government restrictions on travel are announced.

"The Society feels it should restrict this meeting to the minimum necessary to conduct the affairs of the organization. It will cut down attendance from approximately 3,000 expected at Buffalo to 200 officers and delegates who will transact the important phases of the Society's participation in the war effort. All scientific sessions have been canceled as well as social features which usually accompany these meetings."

The JOURNAL calls to the attention of all Section Chairmen the fact that this cancellation will possibly operate to reduce the volume of scientific papers which are ordinarily available after the Annual Meeting for publication in these pages. Doubtless a considerable number of these papers have already been prepared or are now in preparation. Such scientific papers as would have been presented at the various section meetings will be welcomed as usual by the Editors. We must, however, inform all Section Chairmen and our various authors that further curtailments of printing paper

stock are anticipated in 1945. With this in view, we suggest that before they submit their scientific papers to their respective section chairmen, all authors observe the following suggestions:

1. Make a *brief* abstract of the topic of the paper; one or two short paragraphs will usually do. Leave a *triple* space before commencing the first paragraph of the scientific paper proper.

2. If reporting cases, brief them as much as possible; do not cite two cases if one will suffice.

3. Eliminate all charts, graphs, and pictures if possible. If these are *essential* make them few.

4. *IMPORTANT:* Since the papers will *not* be read this year, they should be written, or if already written, be revised for publication. The JOURNAL is published principally for *general practitioners*. They want practical, concise aids to diagnosis and treatment. They have limited time to read. The editors ask the help this year of all contributors to make the content of the articles as concise and practical as possible.

Section chairmen can assist the Editors to meet the extraordinary conditions imposed upon this JOURNAL by the cancelation of the Annual Meeting, by bringing the foregoing suggestions to the attention of their authors.

"To compensate for the loss of the educational advantages of scientific sessions, we are augmenting the postgraduate courses held locally throughout the state under the supervision of Dr. O. W. H. Mitchell, of Syracuse, Chairman of our Committee on Public Health and Education. These provide for institutes held at various sections of the state throughout the year at which attendance is local and only a few speakers are on programs coming from distant points." It is fortunate indeed that the Society has stressed and expanded its postgraduate teaching program to the extent illustrated by the 1944–1945 *Course Book*. The regional programs can thus substitute for as they have previously complemented the scientific sessions of the Annual Meeting.

More fight, less talk.

Stay home. Buy War Bonds.

Walter P. Anderton, M.D.

Dr. Walter P. Anderton, a practicing physician in this city since 1913 and assistant professor of clinical medicine at Columbia University's College of Physicians and Surgeons, was appointed secretary of the Medical Society of the State of New York at a meeting of the Society's Council January 11. He succeeds the late Dr. Peter Irving.

Dr. Anderton is associate attending physician at Presbyterian Hospital, where he has served on the medical staff since 1915.

He is also consulting physician at the French and Knickerbocker Hospitals, New York City, and the Newport, Rhode Island, Hospital. He is assistant professor of clinical medicine, Columbia University, College of Physicians and Surgeons.

The new officer is a member of the American Medical Association, the Medical Society of the State of New York, and the Medical Society of the County of New York, of which he is a past-president. He also served on the county society's committee on legislation and was secretary of the board of censors. He has served as a member of the House of Delegates of the American Medical Association and the House of Delegates of the Medical Society of the State of New York.

Active in many other professional societies, Dr. Anderton holds membership in the New York Gastroenterological Association, the National Tuberculosis Association, the American Heart Association, the Harvey Society, the Quiz Medical Association, of which he is a former president, and the Association of the Alumni of Bellevue Hospital. He is also a Fellow of the American College of Physicians and the New York Academy of Medicine, president of the Francis Asbury Fund, and a trustee of the New York Dispensary.

Dr. Anderton received his A.B. degree at Harvard College in 1908 and his M.D. at the College of Physicians and Surgeons of Columbia University in 1911. He interned at Bellevue Hospital and received his New York State Medical License in 1913.

J. Richard Kevin, M.D.

Dr. J. Richard Kevin, past-president of the Medical Society of the State of New York, died January 8, 1945, at his home in Brooklyn.

Born in LaCrosse, Wisconsin, in 1863, he attended the University of Vermont and graduated from Bellevue Hospital Medical College in 1888. He interned at St. Mary's Hospital, Brooklyn, and remained on the staff thereafter as attending surgeon and then as senior surgeon until the time of his death.

Dr. Kevin was elected to membership in the Medical Society of the County of Kings in 1889 and became its president in 1914. He was one of the original Fellows of the American College of Surgeons in Brooklyn and became President of the Brooklyn Surgical Society in 1909. He was a member of the Brooklyn Pathological Society and member of the Associated Physicians of Long Island, also a member of the Alumni of St. Mary's Hospital, Brooklyn, and President of the Hospital Surgeons Association in 1914. He was Surgeon of the 23rd Regiment, New York National Guard, and went with that regiment to the Mexican Border as a major in the Medical Corps in 1916.

Postgraduate Medical Education, 1945

The activities of the Medical Society of the State of New York with respect to its program of instruction offered each year are again extended and broadened.

The Council Committee on Public Health and Education arranges for instruction in a wide variety of subjects. This program is made available through the combined efforts of the members of the Medical Society of the State of New York, the faculties of medical schools and research institutions, the New York State Department of Health, the Dental Society of the State of New York, the Division of Industrial Hygiene of the New York State Department of Labor, and several other organizations and associations.

A considerable part of these activities is presented in cooperation with the New York State Department of Health. In addition to the courses arranged as series of lectures, speakers on many subjects are available for a single lecture before county medical societies, hospital staffs, and other medical groups. The Committee also arranges instruction for a one-day session designated as a "Teaching Day." A teaching day is a combination of clinics, demonstrations, and lectures for an afternoon and evening. The State Dental Society and the Medical Society of the State of New York have a Joint Committee on Dental Health. This Committee, in cooperation with the New York State Department of Health, has arranged an interesting and informative program which is now available, also. For most of the instruction the lecturers will, upon request, substitute a clinic for the lecture if appropriate patients and facilities are available. This information must be given at the time the request for instruction is made.

Occasionally a county society, hospital staff, or some other medical group desires a program which is not specifically mentioned in these announcements. Should the program, whether clinic, demonstration, lecture, or combination, be one which the Committee can arrange, they will be glad to do so.

The new course book for 1944–1945, which has just issued from the press, features industrial health, treatment of common diseases, diagnosis and treatment of meningitis, and tropical medicine. These subjects have been included in former years, it is true, but the content of the courses has been enlarged. The courses on ophthalmology, penicillin therapy, psychiatry, home and farm accidents are new.

It is to be hoped that county societies, hospital staffs, or other medical groups will take full advantage of the facilities offered in the *Course Outline Book*. All inquiries should be addressed to the Chairman, Council Committee on Public Health and Education, 428 Greenwood Place, Syracuse 10, New York. Copies of the new *Course Outline Book* are on file with the secretary of every county medical society.

ADVANCED CANCER OF THE PROSTATE*

A Consideration of the Value of Radical Prostatectomy in Selected Cases

A LAURENCE PARLOW, M D , Rochester

(From the Department of Surgery Division of Urology of the University of Rochester, School of Medicine and Dentistry, Rochester, New York)

APPROXIMATELY four years ago Huggins and his coworkers[1] described the results of their studies of the effects of the administration of androgens and estrogens on the production of prostatic secretion in dogs These investigators showed that androgens activate prostatic epithelium with a resultant increase in the production of prostatic fluid Estrogens were found to stop the production of prostatic secretion and also to cause a regression of the epithelial cells They also noted that androgens administered to patients with cancer of the prostate produced an increase in the size of the cancer and an exacerbation of their symptoms As a result of these observations, Huggins began to castrate men who had advanced cancer of the prostate and reported the almost miraculous clinical improvement that ensued Not only did the primary cancer regress but there also occurred a disappearance of metastatic nodes At long last we had something encouraging to offer the unfortunate individual who had heretofore hopeless condition

Soon reports were published by staff members of various clinics describing the results of prostatic cancer treated by orchiectomy Nesbit and Cummings[2] observed a favorable response in 73 per cent of 75 cases followed over a period of six months Fifteen cases were considered to be failures and 10 cases were noted as delayed failures Alyea and Henderson,[3] in a series of 40 cases followed over a period of one year, reported an immediate general improvement in all cases Relief of metastatic pain was most remarkable Only one of their patients died of carcinomatosis and one other patient had a delayed failure after eight months Dean, Woodward and Twombly,[4] in an excellent paper, concluded that the majority of patients treated with surgical castration and estrogens, after a variable period of improvement, relapse and die of the disease Herger and Suer,[5] as a result of a study of a series of 82 cases followed over a period of twelve months, arrived at a similar conclusion Kretschmer[6] described his results as anything but desirable Kahle, Schenken, and Burns,[7] in a very thorough study, reported favorable results with the administration of rather large amounts of diethylstilbestrol over a period of three years These investigators pointed out that their studies provided no evidence that cancer of the prostate could be cured by the use of estrogens On the other hand, they did demonstrate that primary and metastatic lesions would regress and that life could be prolonged in comfort

Thus, a review of the literature reveals that the greater number of cases of cancer of the prostate with metastasis treated with castration and estrogens show immediate clinical improvement Regression of both the primary and metastatic lesions, with resultant disappearance of pain and urinary distress, is the usual result These cases also show an apparent return to normal health In many patients, however, the improvement is only temporary Finally, there is a group of cases in which the disease continues its course uninterruptedly despite the treatment with castration and estrogens One also notes the development of two schools of opinion regarding the management of these cases One group advocates the use of stilbestrol therapy and the other group recommends surgical castration plus the use of estrogens However, one observes also that while both factions believe that they are able to obtain corresponding alleviation of symptoms and regression of the disease as a result of therapy, they are fully agreed that neither form of treatment will produce a cure Regarding these therapeutic measures, it is of interest to heed the experience of Alyea and Henderson,[3] who report that the regression of the carcinoma was more complete in patients treated with orchiectomy than in those patients treated with diethylstilbestrol

In view of such information, debate, agreement, etc , it is only natural for one to review the results of therapy in cases of advanced carcinoma of the prostate immediately available to him, keeping in mind the question Is there anything more one can do to effect a cure of the disease? The term "advanced carcinoma of the prostate" is used to indicate the type of case in which the disease is no longer confined within the capsule of the prostate, metastasis has occurred and a radical operation is considered as offering no permanent benefit

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Read at the Annual Meeting of the Medical Society of the State of New York New York City May 10 1944

* This investigation was supported with funds from the Dr Henry C Buswell Memorial

During the period between January, 1941, and November, 1943, 75 cases of advanced cancer of the prostate were treated with orchiectomy. Eighteen of these cases received prostatic resection in addition to castration. The diagnosis, in 66 cases, was proved by microscopic examination. In the remainder of the series the diagnosis was made by rectal examination and by x-ray studies. All of these patients complained of symptoms referable to the act of urination, varying from frequency to complete retention. Forty-two patients complained of low-back pain and loss of weight. Hematuria was a symptom in only 7 patients. In 23 cases there was no clinical or x-ray evidence of any metastasis. Radical perineal prostatectomy was considered inadvisable, inasmuch as the disease was not confined within the capsule of the prostate, in all of the cases. Eighteen patients were found to have a normal serum phosphatase estimation prior to orchiectomy. In the remainder of the series there was an elevation of the serum phosphatase, and one was recorded at 155 units, using the King-Armstrong technic.

Following orchiectomy 18 patients were considered as complete clinical failures. In no instance was there any relief of pain and the progressive advancement of the disease was in no way altered. Stilbestrol was administered to these patients and found to be ineffective. It is interesting to note that in this group microscopic examination of tissue from the prostate revealed carcinoma of the undifferentiated type.

Fifty-seven patients showed immediate clinical results characterized by loss of all metastatic pain and general subjective improvement. Forty-three of this group must be considered as delayed failures, inasmuch as all again developed symptoms of advanced carcinoma of the prostate after intervals of from eight to thirty months. Examination revealed only partial regression of the disease in 21 of these cases. The microscopic examination of tissue from the prostate in this group revealed no definite histologic arrangement of the carcinoma. Areas of both the adenocarcinoma and undifferentiated type of carcinoma were the characteristic findings.

Of great interest is the fact that following orchiectomy 36 patients had complete clinical disappearance of the carcinoma. However, of this number only 14 were symptom-free and showed no evidence of any return of the disease after an interval of twelve to twenty-nine months. It is noteworthy that complete regression of the cancer occurred only in those cases in which microscopic examination of tissue from the prostate revealed a typical adenocarcinoma.

Serum phosphatase estimations were obtained for all patients following orchiectomy. These recordings were found to parallel the clinical features of each individual. In many patients a return of the carcinoma was signalled by a rise in the serum alkaline phosphatase before digital examination revealed any evidence of recurrent prostatic changes. Stilbestrol administered to this group of patients was found to be of value in the control of their symptoms but not of the disease.

Thus a summary of the cases of advanced carcinoma of the prostate treated by castration reveals results that may be divided into four groups:

1. Complete failure—This group is composed of cases of the undifferentiated type of carcinoma. Neither orchiectomy nor estrogens in any way alter the progress of the disease.

2. Partial failure—In this group there is a temporary relief of symptoms. Regression of the disease is not complete. The carcinoma shows no uniform arrangement.

3. Delayed failure—This group is composed of cases of well-differentiated adenocarcinoma. Orchiectomy is followed by a temporary but complete relief of all symptoms. The disappearance of the primary cancer and metastatic nodules, as proved by digital examination and serum phosphatase estimation, is not permanent.

4. A fourth group is added to include those cases having results similar to those in Group 3 and in which reactivation of the carcinoma has not occurred. The evidence is, however, that this group will be eliminated with the passage of time.

Thus, a review of treatment of advanced carcinoma of the prostate, by orchiectomy, reveals that while many cases are benefited, few, if any, are cured. There is no doubting the fact, however, that orchiectomy will produce a complete clinical regression of the disease in certain cases. In this connection, Barringer[8] states "that carcinoma of the prostate may remain enmeshed in fibrous tissue and be clinically suppressed for years before becoming activated." This opinion is substantiated in the following case.

Case Report

Case 1.—H. H., aged 70, had complete clinical and serologic disappearance of prostatic cancer following orchiectomy. Six months following castration he developed pneumonia and died. An autopsy was performed and microscopic examination of the prostate revealed cancer cells enmeshed in fibrous tissue.

Early recognition and complete removal of a carcinoma is generally recognized as the only hope of completely eradicating the disease.

In 1905, Dr Hugh H Young,[9] published his technic of radical perineal prostatectomy Lewis,[10] in reporting almost 50 per cent five-year cures in 115 cases of early prostatic cancer treated by Young and his staff, very definitely states that the disease can be cured Other exponents of this operative procedure, I know, have had comparable results

In view of the fact that it is becoming increasingly evident that certain cases of advanced carcinoma of the prostate completely regress following orchiectomy and later become activated why then not treat these cases like the bride, to "something old and something new?' Iodine administered preoperatively to patients with certain types of goiter has been proved to produce a regression of this disease We know that orchiectomy will produce a regression of certain cases of advanced cancer of the prostate Therefore, it is suggested that a radical perineal prostatectomy be performed on individuals in whom a carcinoma has been proved to have disappeared by digital examination and by the demonstration of normal acid and alkaline phosphatase blood levels

There is no doubting the great benefits many individuals are now enjoying as a result of orchiectomy One can only hope that a subsequent radical operation will prevent many of these patients from suffering the agonies of a return of the disease The test of time, of course, will prove the value of the suggested radical surgery and it is hoped at a later date results will be reported

Conclusions

Orchiectomy is a procedure of proved value in cases of advanced adenocarcinoma of the prostate, but few patients, if any, are cured It is of little or no value in cases of the undifferentiated type

It is suggested that a radical perineal prostatectomy may be of value in certain cases in which complete regression of the carcinoma has occurred as a result of orchiectomy and estrogen therapy

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Discussion

Dr John K deVries, *New York City*—I have enjoyed all three of this afternoon's papers

Dr Heslin has re emphasized the need of thorough urologic study for the early recognition of upper urinary tract anomalies

Dr Davis has given us an important contribution in the control of certain ureteropelvic obstructions It will be interesting to find out whether ureters with such extensive injury regenerate completely or not

Because of the shortness of time I would like to spend it in the discussion of Dr Parlow's paper

Mark Curtis reported, in 1942, 27 cases of prostatic malignancy treated by castration at the New York Hospital He found 93 per cent immediate improvement and regression of skeletal metastases in 3 of 8 cases or 38 per cent

In reviewing these same cases two years later we have eliminated 2 cases because pathologic diagnosis failed to corroborate the diagnosis of carcinoma, but now, two years later, of 25 cases 11 are dead—45 per cent, 4 are unimproved or failing—16 per cent, 10 still show improvement—40 per cent Of the 10 patients still showing improvement 4 had perineal prostatectomy, and 6 had transurethral resection as well as castration

Of the 15 patients unimproved or dead 2 had no other operation Nine had transurethral resection, 4 had radical perineal prostatectomy as well as castration

Of the 23 cases of which pathologic diagnosis was made, 14 were listed as adenocarcinoma, 6 anaplastic, and 3 mixed types Three, or 50 per cent, of the anaplastic cases are among those still showing improvement, 6, or 42 per cent of the adenocarcinomas are among those still showing improvement One, or 33⅓ per cent, of the mixed types is among those still showing improvement

It has been my practice to do total perineals on all cases of prostatic cancer in which metastases cannot be demonstrated by x ray or elevation of phosphatase and to withhold castration for cases with advanced metastases with marked symptoms, as the last ace to be played

I believe, however, that Dr Parlow has a good idea which might be suitable for those cases without metastases

When skeletal metastases have occurred it is my impression that castration alone or combined with total prostatectomy is only palliative but should be used as the best method now available

Dr William J. Kennedy, *Gloversville New York*—Dr Davis has presented a unique and what appears to be a very versatile operation This operation depends for its success on the inherent ability of the ureter to repair itself when given proper splinting and drainage This principle has been used successfully for many years cystoscopically It is a

well-established fact that ureters injured during pelvic surgery will almost invariably heal if a catheter can be introduced above the injury, provided the catheter is permitted to remain *in situ* for a sufficiently long period. In these cases one can rarely demonstrate the extent of the ureteral laceration, but it is probable that some, at least, are fairly extensive. The fact that ureteral incisions, especially those parallel to the long axis of the ureter, heal readily without suturing makes possible the splendid results obtained by Dr. Davis.

During the past decade surgical procedures on the upper urinary tract have tended toward increasing conservatism. Hydronephrosis caused by ureteropelvic obstruction is being successfully managed by means of resection of the redundant pelvic tissue, transplantation of the ureter to avoid constricting vessels, and numerous other plastic procedures such as those described by Foley, Gibson, Young, and many others.

The Rammstedt operation has been effective in obstruction caused by stricture, but it is not suitable in instances where the wall of the ureter is thin, and therefore is of somewhat limited value. The plastic operations such as those advocated by Foley are of great value in the presence of hydronephrosis but are of no value whatever when an intrarenal pelvis is encountered.

The procedure presented by Dr. Davis offers a wide range of usefulness. It may be used in cases presenting hydronephrosis in any degree and is equally useful when an intrarenal pelvis is encountered. Since this procedure need not be confined to any particular portion of the ureter, it lends itself admirably to a wider range of use than does any other method. Dr. Davis has reported a case in which the ureter was strictured from a point just below the ureteropelvic junction to the midportion of the ureter. This was treated successfully by this method. The strictured portion of the ureter was opened, which left only a narrow ribbon of ureteral tissue. This was held in contact with an indwelling catheter by sutures. Complete regeneration of the ureter resulted. I know of no other procedure which could have accomplished the same results.

Persistent efforts to control prostatic cancer have been carried on steadily for many years but it is only within the past few years that any real progress has been made, and that, in the majority of cases, only a prolongation of life and some alleviation of pain. Suprapubic prostatectomy is inadequate; deep x-ray and radium are of only limited value.

With the advent of transurethral resection many hailed this method as a boon to the patient with prostatic cancer. For here at last was a method which was capable of keeping the prostatic urethra open and thus relieving the suffering caused by urinary retention. In many instances this was accomplished, but no case has ever been cured by this method. In 1905 Young described his radical perineal prostatectomy and presented a higher percentage of cures than could be claimed by advocates of any other method. To be effective the operation should be done before the capsule has been invaded, so only about 12 to 15 per cent of prostatic carcinomas are suitable for this operation.

About five years ago Huggins presented his work on the use of estrogens and castration. Immediate results were striking. Pain because of metastasis was relieved, often within forty-eight hours. Bone and lung metastases regressed. The gland became softer and less fixed and the serum phosphatase returned to normal. Patients who were apparently doomed regained their health and strength, and some were able to resume their former activities. After a variable period of time, however, practically all of them developed a return of their symptoms, metastasis recurred and extended, and the ultimate fatal termination ensued.

Dr. Parlow's method of handling cases of advanced carcinoma in which the capsule has been invaded is an interesting one. Most of us have been inclined to class this type of case as hopeless. Dr. Parlow, however, has not been content to adopt so passive an attitude. Following orchiectomy and the administration of estrogens he has found that some cases regressed to a degree which would permit a radical perineal prostatectomy to be done with some hope of success. What the ultimate results will be only time will tell. The immediate results obtained following orchiectomy and the administration of estrogens have been spectacular, to say the least. This has been especially true of the metastatic lesions. Unfortunately, however, results are usually not permanent. Metastatic lesions which have regressed recur and new ones develop. Since this process occurs in nearly all cases of distant metastasis, it is not unreasonable to assume that at least in some cases it may not also occur at the site of the primary lesion or in the tissue adjacent thereto. I believe, however, that the method suggested by Parlow offers the patient with advanced carcinoma of the prostate his best hope of survival.

I shall limit my remarks on Dr. Heslin's paper to the brief presentation of a few cases which illustrate the result of delayed diagnosis. The first case is that of a 10-year-old white boy who had suffered throughout most of his life from recurring attacks of fever, dysuria, urgency, and pyuria. His parents were urged by the family physician to permit a urologic investigation. Permission was refused and the child was not studied until his condition became grave, approximately two years later. At the time of his admission to the hospital, the patient was running a high temperature and the urine was foul and heavily loaded with pus. Cultures showed B. coli. The blood urea was 65; creatinine was 3.5. An intravenous phenolsulfonephthalein test showed no dye eliminated in two hours. Cystoscopy and pyelography were done. Urinary output became progressively more scant, blood urea and creatinine levels continued to rise, and the child died in coma twenty-five days after admission.

The second case is that of a 17-year-old boy who had never had any symptoms referable to his urinary tract, despite the fact that he had engaged to an unusual degree in contact athletics. One week

before admission, while playing basketball, he received a blow over the left loin from another player's knee Severe pain and some shock with subsequent hematuria ensued Retrograde pyelography showed the right kidney pelvis to be of normal size and contour, and 30 per cent of the phthalein was eliminated from this kidney in one-half hour No dye appeared from the left kidney during the same period The capacity of the left kidney was about 75 cc Nephrectomy was done

The third case is that of a 9 year old girl whose chief complaint was pain and tenderness in the right lower quadrant with fever, vomiting moderate leukocytosis, and rigidity She had been ill for twenty four hours before a physician was called On examination a mass was palpated which with the history, led to a diagnosis of acute appendicitis with abscess At operation a normal appendix was found and the mass was found to be retroperitoneal Subsequent urologic investigation revealed an ectopic kidney, the pelvis of which harbored B coli

The fourth case is that of a 7 year old girl who suffered recurring attacks of pain nausea, and vomiting, usually of about one week's duration Attacks recurred about every three weeks and were severe enough to confine her to bed Attacks were believed to be of gastrointestinal origin until she was seen by another physician, who discovered a mass in the upper quadrant A hydronephrotic kidney was found on cystoscopy

It is somewhat regrettable that Dr Heslin's paper could not have been presented before a group interested in general medicine, for it is a plea for early recognition of urinary tract disease which only the family physician is in a position to make

In conclusion, I wish to offer my congratulations to all the essayists for their very excellent papers

Dr Roy B Henline, *New York City*—Dr Parlow has presented some very interesting problems for consideration in the treatment of advanced carcinoma of the prostate According to his findings there is a marked difference in the response of cancer of the prostate to orchiectomy or stilbestrol injections, depending on the type of cancer present in the prostate His cases indicate that only adenocarcinoma of the prostate improves under this treatment and those prostates which present an undifferentiated type of cancer, or a mixed type, respond less favorably to orchiectomy This leads one to the assumption that the relationship of androgens to adenocarcinoma is fairly well established but that the same relationship to an undifferentiated carcinoma of the prostate is problematic

If this is true, a more careful pathologic examination of the tissue removed from patients with cancer of the prostate may aid us in evaluating the likely response to this form of therapy

Dr Parlow postulates the theory that radical perineal prostatectomy may be helpful in those patients who have been temporarily benefited by orchiectomy Cancer of the prostate, clinically confined within the prostatic capsule, is best treated by radical perineal prostatectomy Orchiectomy is usually done when there is either clinical or x ray evidence that the cancer has spread beyond the confines of the prostatic capsule He suggests that the subsequent removal of the prostate following orchiectomy in these cases, even with evidence of extension beyond the region to be surgically removed, may prolong the patient's life and inhibit the continued growth and spread of the cancer It may be possible that removal of the origin of the lesion by radical perineal prostatectomy may be beneficial in these cases, yet a group of cases would need to be followed over long periods of time before one could come to this conclusion We have followed this procedure in a number of cases in our department yet the time elapsing and the number of cases prevent us from evaluating our results at this time Any procedure which affords these patients prolonged comfortable life is worthy of consideration and Dr Parlow is to be commended for presenting this interesting paper

COUNTY MEDICAL SOCIETY LIFE MEMBERSHIPS AND ENDOWMENT FUNDS

In the July issue of the *Mississippi Valley Medical Journal*, Dr Harold Swanberg advocates the establishment of endowment funds and life membership plans in all but the smaller county medical societies "This plan affords the member an opportunity of paying his full dues during his most productive years and while his income is greatest, thus avoiding the burden of dues later in life"

Since life membership fees can be declared a profes- actual
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considerably less than the amount paid, since 27 to 57 per cent (depending on the surtax net income) represents tax savings If life membership fees are invested in war bonds and placed in an endowment fund it will further help the government finance the war, a patriotic undertaking of which every loyal American physician wants to be a part

Swanberg also states that "physicians, as a class, have not been generous with their contributions to medical organizations and it is high time efforts were made to correct this situation" He feels that "the physicia
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ANOMALIES OF THE UPPER URINARY TRACT

JOHN E. HESLIN, M.D., and WILLIAM A. MILNER, M.D., Albany, New York

A FEW years ago, before this Section, we presented a paper on the conservation of renal tissue. The purpose of this discussion is to again call attention to the importance of anomalies of the urinary tract in the production of renal pathology and to make a plea for their early detection and surgical correction to accomplish renal conservation.

Intravenous urography, sulfa therapy, and improved plastic surgical procedures have been great contributions in this particular phase of urology, and the next few years should produce marked strides not only in the saving of kidney tissue, but in saving and prolonging, comfortably, the lives of patients.

In children especially is the early diagnosis of anomalies important. Relief of obstruction, before irreparable damage has been done, and the great restorative ability of renal tissue in children should lessen the number of cases now coming to us in which nephrectomy is the only procedure indicated.

Urologic investigation—at least urographic study by pediatricians and general practitioners of every case presenting obscure abdominal symptoms and recurrent cases of pyuria—must be carried out if we are to discover these cases early. The frequency of scars of abdominal incisions indicates that the surgeon should also take his place with those responsible for the overlooking of these lesions and resulting kidney loss.

When we consider the embryologic development of the upper urinary tract with the so-called ascent and rotation of the kidney to its normal position, we can see the opportunities for production of anomalies. Position, rotation, fusion, duplications, aberrant vessels, etc., can be traced to some stage in this development and account for the fact that there are probably more anomalies in the urinary tract than in any other system.

Gutierrez,[1] who is frequently quoted in discussions of the anomalies of the urinary tract, has given us an outline which we should keep in mind as we try to explain urologic pathology in the upper tract.

Incidence

Gutierrez has reported that 40 per cent of pathologic lesions in the ureters and kidneys are due to congenital anomalies. Campbell,[2] nine years ago, in reviewing his material, found 68.8 per cent of 282 cases of hydronephrosis in infants and children, secondary to upper tract anomalies; 30 per cent of 580 cases of persistent pyuria could be attributed to the presence of these conditions. Dees[3] reported that 135, or 9.6 per cent, of 1,410 consecutive patients showed congenital anomalies of the upper urinary tract. In 74.7 per cent of these the anomaly was the definite underlying cause of symptoms. In only 11.1 per cent was the anomaly without significance.

Culp and Hiebert,[4] in reviewing pyelographic studies in 747 Army patients with symptoms referable to the urinary tract, found 3.1 per cent with congenital anomalies. More than 50 per cent had infection, lithiasis, or hydronephrosis. They call attention to the fact that some anomalies cause symptoms in the absence of secondary pathology.

Mechanism

It is probable that *obstruction*—one of the fundamental factors in the production of urologic pathology—is here also the principal cause. Although a few cases of anomalous conditions are found on postmortem with no resulting damage, these cases are rare and we must assume that anomalies produce obstruction with resulting dilatation, back pressure, diminished kidney function, and the destruction of the parenchyma. Malposition, reduplication, and accessory bands and vessels account for much primary obstruction. Infection develops in this fertile soil and further progressive changes take place.

The progressive nature of the condition makes early diagnosis important and prophylactic treatment definitely indicated.

Symptoms

Unfortunately, no pathognomonic symptoms can be given and, in fact, marked progressive changes are frequently noted in the complete absence of symptoms. General abdominal symptoms with or without urinary tract symptoms may be the first noted, as surgical incisions would indicate. More and more urography is being used in vague abdominal complaints by the internist, pediatrician, and surgeon.

Urinary tract symptoms usually are associated with the development of infection. Pyelitis and cystitis, which fortunately, in this case, do not permanently clear up with any type of antiseptic, demand investigation and the anomaly is found.

Gastrointestinal symptoms, abdominal pain, and constipation, the so-called horseshoe kidney

Read at the Annual Meeting of the Medical Society of the State of New York, New York City, May 10, 1944.

syndrome, may make one suspicious of this in the absence of urinary tract symptoms Gutierrez reports this syndrome to be present in 96 per cent of his series of cases of horseshoe kidney

Diagnosis

The diagnosis of anomalies of the urinary tract depends, first, upon keeping their presence in mind On this basis, the use of the x ray and intravenous urography in cases of vague abdominal and back pain and recurrent urinary tract infections will uncover many cases

Complete urologic study, including cystoscopy and retrograde urography, will be necessary in most cases to secure the necessary information not only to govern the type of treatment indicated but also to guide the surgeon before and at the time of operation

Intravenous Urography—This most important phase of the diagnosis of these lesions frequently reveals the diagnosis, but unsatisfactory films must be supplemented with retrograde pyelograms

Frequent causes of poor intravenous films are (1) failure to dehydrate the patient, which allows too rapid excretion of the dye (2) failure to use abdominal pressure or Trendelenburg position to aid in retention of the dye, (3) in children, too small a dose of the dye We find that the subcutaneous injection of the adult dose in saline will give us satisfactory films in this so important class of cases

Misinterpretation of urographic films may lead to delay in proper diagnosis as revealed in a recent case An alert pediatrician, in caring for a child of three years, properly had urographic films made because of recurrent pyuria A typical obstructive type of bilateral hydronephrosis was wrongly diagnosed as polycystic disease, with its hopeless prognosis given Four years later, studies were repeated and retrograde pyelograms were made These films were submitted to an outstanding pediatric urologist, who reported obstructive hydronephrosis, and still the diagnosis of polycystic disease was insisted upon All types of antiseptics were used without results and this condition was allowed to progress for five more years, when we found bilateral congenital stricture at the pelvic outlet

Plastic operation has corrected the condition, and our hope is that the great recuperative power of the kidney in children may be sufficient to allow him a normal span of life

It is difficult to estimate the true kidney function in these cases of long standing hydronephrosis We cannot rely upon the poor excretion in an intravenous pyelogram or, in fact, upon the phthalein output at the time of cystoscopy Continued drainage may produce as startling improvement in function as we see in prostate cases placed upon continuous drainage Consideration of this fact may conserve a kidney which otherwise might appear to require nephrectomy

Hydronephrosis associated with aberrant vessels may show a typical defect suggesting this causative factor, and the relation of the ureters to the pelvis may make one suspicious of high insertion of the ureter However, the large pelvis may entirely mask the true condition present, and we agree with Henline and Menning[5] that an accurate diagnosis must, in most cases, be made at the operating table

Gutierrez has devised the pyelographic triangle as a most important sign in the diagnosis of horseshoe kidney A flat plate may show an altered position of the lower poles of the kidney or the isthmus joining the poles The characteristic course of the ureters, giving the so-called "flower vase" appearance, is also diagnostic

To meet this challenge of a greater number of anomalies in the urinary tract we have a most efficient diagnostic armamentarium, and its use is all that is necessary to unmask most of these silent, progressive, destructive processes

Treatment

Although we do see an occasional case of upper urinary tract anomaly going on throughout life without symptoms or progression, this cannot be accepted as a basis for all treatment

Age of patient, type of lesion, associated pathology and stage in its progress will influence our handling of each case

Anomalies with no resulting pathology demand no treatment If discovered early in life our responsibility demands urologic study at intervals to note any early change Cases with minor changes resulting from anomalies may be observed at intervals and their response to internal medication and instrumental procedures may be noted

The presence of attacks of pain, persistent and recurrent pyuria, or progressive hydronephrosis demands correction We are, then, dealing with a progressive lesion and we are not justified in carrying these patients on with palliative measures Removal of the obstructing factor may require a simple procedure or some complicated plastic operation The simple freeing of bands of fibrous tissue or small polar aberrant vessels may save the kidney Henline and Menning have called attention to the presence of associated pathology at the ureteropelvic junction in these latter cases

Plastic surgical procedures necessary to relieve obstruction are not within the scope of this paper.

The type of operation must be selected to fit the particular problem found at the time of exploration.

Pre- and postoperative sulfa therapy has greatly added to our success and has given us a greater number of cases where operation is indicated.

The contributions of Hinman, Young, Deblet, Foley, Schwartz, and others have provided several technics, each having its place in the mechanical handling of the ureteropelvic junction changes.

Splinting of the ureter, use of fine sutures, careful coaptation of the edges, nephrostomy drainage for varying periods of time, are probably the most important technical points leading to a successful result.

Summary

1. Anomalies of the upper urinary tract are frequent, usually progressive, and destroy kidney tissue.

2. Vague abdominal symptoms and persistent and recurrent pyuria demand urographic and urologic investigation.

3. Satisfactory surgical procedures can be expected to relieve in a large proportion of cases.

4. A plea is made for the early recognition and surgical correction of these anomalies.

References

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SHAW VERSUS MEDICINE

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This suggestion of compulsion is not true of medicine in this country. He says of the modern treatment of venereal disease, presumably meaning the treatment of gonorrhea by sulfonamides and penicillin, "There is the gravest doubt as to whether the prescribed treatment of venereal disease is not mischievously mistaken." Of salvarsan he observes, "The truth was that it combined mercury with arsenic"; the truth is that mercury does not enter into the composition of salvarsan. Mr. Shaw goes on, "When, as in the case of syphilis, the suppressive agent is a malignant poison, it is strongly held in certain quarters that the terrible secondary and tertiary recurrences of the worst symptoms are not the disease at all but the specific effect of the poisons with which it has been treated." Of surgeons he observes that "scepticism as to the utility of drugs is shared by surgeons. They use drugs only to produce temporary insensibility to pain." This remark shows the extent of Mr. Shaw's ignorance of modern surgery.

Mr. Shaw brings up again his old bugbears of vaccination and vivisection, and, as he apparently wishes to be seriously considered as a statistician, we have invited the foremost medical statistician of the day, Prof. Major Greenwood, to examine the statistical exercises of an amateur (see page 570, October 8 issue). Some insight into the emotional basis of Mr. Shaw's ratiocination is provided by his statement, "Of all legalized tyrannies none is more unbearable than those which lay violent hands on us and our children and inject poisons into our veins or thrust them down our throats." Mr. Shaw thinks that Isaac Newton wrote nonsense when he passed from mathematics to theology; it is possible that Mr. Shaw is not intellectually so much greater than Newton, that, when he puts playwriting aside and turns to pathology, he can write good sense.—*Editorial, British M. J., Oct. 28, 1944*

THE SIGNIFICANCE OF HYPERGLYCEMIA IN MYOCARDIAL INFARCTION

EMANUEL GOLDBERGER, M D , JOSEPH ALESIO, M D , and FANYA WOLL, New York City

(From the Department of Medicine Lincoln Hospital, New York, Dr Leander H Shearer, Director)

ALTHOUGH it has often been reported that during the acute attacks of myocardial infarction, transient glycosuria and hyperglycemia appear,[1–6] the significance and interpretation of this data is still uncertain, especially as to whether this hyperglycemia is to be considered a sign of latent or incipient diabetes mellitus

Furthermore, there does not seem to have been any attempt made to follow up individual patients over any long period of time We therefore felt that study of blood sugar curves in individual patients, not only during the period of acute infarction but during the course of their convalescence and rehabilitation, might be of value

Method

In our study of sugar metabolism we made use of the Exton and Rose oral one-hour, two-dose glucose tolerance test[7] Briefly, the test is performed as follows

1 One hundred grams of glucose is dissolved in 650 cc of water and divided into two equal parts, each containing 50 Gm of glucose

2 Following an overnight fast, the bladder is emptied and a sample of urine is saved as a "fasting specimen"

3 Blood is then drawn for a "fasting blood sugar" determination, and the first dose of glucose is given

4 In one-half hour, a second specimen of urine and of blood is collected, and the patient is given the second dose of glucose

5 Thirty minutes after this, a third specimen of urine and of blood is collected

Concerning the interpretation of the results, we used the following criteria established by Matthews, Magath, and Berkson[8]

1 If the fasting blood sugar level is over 90 mg , diabetes may be suspected

2 A half-hour level of more than 142 mg indicates probable diabetes

3 An hour level of 158 mg or more indicates diabetes If the value is over 180 mg diabetes is definite

4 In nondiabetics the hour level is lower than the half hour level

Material

Thirty-eight tests were performed on 14 patients with myocardial infarction, selected by chance, over a period extending in certain cases up to thirteen months All patients had been hospitalized for acute myocardial infarction The diagnosis was determined not only clinically but by means of serial electrocardiograms, sedimentation rates, blood counts, etc Many of the patients are still being observed by us in the cardiac clinic of the hospital In none of the patients was there either a history or evidence suggestive of diabetes, and routine urine analyses were always negative for sugar

In all but 3 of the patients at least two glucose tolerance tests were done

Results

The data are tabulated in Table 1 Using the criteria described above, of the total series of 14 cases, 6 presented definite evidence of diabetes, 4 were abnormal, and 4 were normal Of the 11 patients who had blood determinations done within two weeks after the attack, 7 were normal and 4 were abnormal If the first 6 cases presenting the "diabetic sugar curve" are further analyzed, the results become more significant

Case Reports

Case 1 —This patient did not begin to show abnormal values until six weeks after the attack, after which time the sugar values became more and more abnormal, until at the end of seven months, they were frankly diabetic Thirteen months after the infarction the glucose tolerance curve was still diabetic

Case 2 —This patient had a normal sugar curve at the end of ten days, it was slightly abnormal after twenty one days, and at the end of six months was diabetic Toward the end of a year after the initial attack, the glucose tolerance curve though not diabetic, was still slightly abnormal (the hour value was higher than the half-hour reading)

Case 3 —The patient was normal three days after the attack but had a diabetic tolerance after five months, and at eight months was still abnormal A year after the attack, although the actual readings were within normal, again the hour reading was higher than the half hour level

Case 4 —The sugar curve was normal at the end of one month, but the patient had a diabetic tolerance after two and a half months

Case 5 —The patient presented diabetic curves after three weeks, after three months, and after eight and a half months

Case 6 —This patient had a diabetic curve at the end of ten days, but by four and a half months, although the values were within normal, again the hour level was higher than the half hour reading

2. Supply oxygen to the lungs rapidly.— There are four methods of doing this:

(*a*) Mouth-to-mouth breathing. This is a most useful method, inasmuch as no apparatus is required and the means of its accomplishment are always at hand. It is a valuable method and has saved many lives, particularly in infants. It is occasionally destructive, since the overenthusiastic resuscitator is liable to exert more intrapulmonic pressure than the lung can withstand. It is important to remember that a safe intrapulmonic pressure in infants is 10–15 mm. of mercury and in adults, 40–50 mm. of mercury. Wilson[8] has stated, "The lung tissue cannot, itself, be adequately aerated (inflated) even by pressures high enough to be injurious or destructive." Henderson[9] answered, "Intratracheal insufflation is not done for the purpose of inflating the lungs. It should not inflate, and if properly done it cannot inflate. It merely supplies oxygen so deep in the respiratory tract that the blood is oxygenated without any respiratory movement of the chest." In applying mouth-to-mouth resuscitation, therefore, only a moderate pressure should be exerted, as harmful effects may ensue otherwise.

(*b*) Manual methods. The Schaeffer prone-pressure method is accepted today as the most easily applied and most efficient of the various manual methods. In recent years there has been a great impetus given to the teaching of this method to various groups, particularly first-aid classes, and many lay people have become skilled in its use. It is an essential part of the physician's armamentarium that he be skilled, too, in its application. Other methods, *viz.*, Silvester arm-abducting method, Neilson prone pressure, Eve rocking, and Thomson lifting methods have found much favor among certain groups, particularly the Eve rocking method, which is very popular in the British armed services.

(*c*) Mechanical methods. There are many and varied types of mechanical resuscitators in the field, the very number of which indicates that no one type is entirely satisfactory. Any mechanical resuscitator should fulfill the three requirements as stated:

1. Insure the patency of the airway,
2. Supply oxygen to the lungs rapidly, and
3. Do this under measured pressure.

The only mechanical resuscitator that fulfills these three requirements is one that follows the principle of Meltzer and Flagg in the use of a laryngoscope and the employment of aspiration and intubation of the larynx and trachea as its primary *modus operandi*. Any other mechanical aid that neglects the first principle (insure the patency of the airway) is not worthy of classification as a resuscitator; these are merely inhalators. A large percentage of asphyxias are caused by obstructions in the upper respiratory tract, hence a mere inhalator which supplies oxygen only to the mouth and not deep in the respiratory tree is useless as such, hence, pneumatologists are skilled in visualizing the larynx and introducing tubes into the trachea after aspiration of the passage. The frequent use of "suck-and-blow" apparatus has been instrumental in popularizing this type of machine[10] but it is useless when the cause of the asphyxia is obstruction of the airway. More recent experimental work has demonstrated that "suck-and-blow" is, in itself, effective when the airway is patent, even using inert (asphyxiating) gases.[11] The pneumatologist must determine the method of resuscitation and the type of resuscitator to be used (if at all) on each case and to remember that Henderson has said, "Prolonged, forcible, 'suck-and-blow' artificial respiration may cause injury to the lungs, shock, and death."[12] If the asphyxia is not caused by mechanical obstruction, then the various "suck-and-blow" resuscitators may prove useful. This can be accomplished without the use of high-priced instruments by merely employing the rubber bag of the anesthetic machine and rhythmically compressing it with the hand. Hand pressure, however, should be so performed as to avoid pressures that are excessive. Mechanical "suck-and-blow" resuscitators may perform this function and without danger of overdistention of the alveoli if they are based upon the action of pistons which are so calibrated as not to exceed 40–50 mm. of mercury intrapulmonic pressure for the adult, and 10–15 mm. for the infant. In the latter class may be placed the E and J resuscitator and the Emerson resuscitator. The Kreiselman resuscitator has also found favor. The Drinker resuscitator (the so-called iron lung) is a very valuable machine for use in chronic or long-standing asphyxias, such as in poliomyelitis or Landray's paralysis. It should be available in every community.

(*d*) Drug treatment. The analeptics usually employed are metrazol, coramine, alphalobeline, and lobeline hydrochloride. They occasionally prove valuable when used in conjunction with mechanical or manual methods. They are useless in asphyxia if used alone. Picrotoxin is of use in the treatment of barbiturate poisoning. It should be borne in mind in using these drugs that they are convulsants and if used improperly, or to excess, may result in a convulsive state and consequent irreparable damage to the physical status of the patient.

(*e*) Supportive measures. The pneumatologist employs heat as one of his most effective aids in resuscitation. The heat can be applied in the

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"He who can, does; he who cannot, teaches," wrote Mr. Bernard Shaw in his revolutionary days, and for the past sixty years he has been teaching and preaching at a good-humoured English public who have richly rewarded him for the amusement he has provided them. For the past thirty-eight years hundreds, perhaps thousands, of doctors have cheerfully handed in their money at the box office in order to get a good laugh out of *The Doctor's Dilemma*, quite unperturbed by the attack made by Shaw upon the medical profession, because it was very plain that he did not understand the nature of a doctor's work. Whatever else he has learnt in order to try to teach others, he seems not to have learnt one lesson—that of humility; and it is the absence of this quality in his recent book which has dismayed some of his reviewers. Since the publication of *The Doctor's Dilemma* in 1906 Mr. Shaw seems to have confirmed himself in his own ignorance of medical matters, and now abuses the great position he holds in the public life of his country by misrepresenting facts. "Men," he writes, "have submitted to castration . . . . but compulsion of everybody willynilly to dangerous blood poisoning repeated for every virus discoverable by the new electron microscope, to sterilization, to extirpation of the uvula and tonsils, to birth delivery by the cesarean operation, to excision of several folds of the bowel and of the entire appendix, to treatment of syphilis and malaria by doses of mercury and arsenic, iodine, and quinine, all of which have been advocated by eminent physicians and surgeons, and some of them legally enforced to-day. . . . "

This suggestion of compulsion is not true of medicine in this country. He says of the modern treatment of venereal disease, presumably meaning the treatment of gonorrhea by sulfonamides and penicillin, "There is the gravest doubt as to whether the prescribed treatment of venereal disease is not mischievously mistaken." Of salvarsan he observes, "The truth was that it combined mercury with arsenic"; the truth is that mercury does not enter into the composition of salvarsan. Mr. Shaw goes on, "When, as in the case of syphilis, the suppressive agent is a malignant poison, it is strongly held in certain quarters that the terrible secondary and tertiary recurrences of the worst symptoms are not the disease at all but the specific effect of the poisons with which it has been treated." Of surgeons he observes that "scepticism as to the utility of drugs is shared by surgeons. They use drugs only to produce temporary insensibility to pain." This remark shows the extent of Mr. Shaw's ignorance of modern surgery.

Mr. Shaw brings up again his old bugbears of vaccination and vivisection, and, as he apparently wishes to be seriously considered as a statistician, we have invited the foremost medical statistician of the day, Prof. Major Greenwood, to examine the statistical exercises of an amateur (see page 570, October 8 issue). Some insight into the emotional basis of Mr. Shaw's ratiocination is provided by his statement, "Of all legalized tyrannies none is more unbearable than those which lay violent hands on us and our children and inject poisons into our veins or thrust them down our throats." Mr. Shaw thinks that Isaac Newton wrote nonsense when he passed from mathematics to theology; it is possible that Mr. Shaw is not intellectually so much greater than Newton, that, when he puts playwriting aside and turns to pathology, he can write good sense.—*Editorial, British M. J., Oct. 28, 1944*

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In view of the fact that many of our cases tended to show signs of abnormal sugar metabolism long after the acute signs of infarction had disappeared, we cannot accept the concept that the hyperglycemia is a temporary phenomenon, and thus are forced to discard the first and second hypotheses Before discussing the concept that these changes are a manifestation of diabetes, it would be well to consider the effect of hypertension itself as a cause of hyperglycemia

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The general tendency of the glucose tolerance tests to become more and more abnormal over a period of time makes us feel that these patients have latent diabetes The fact that at the end of a year Cases 2 and 4 had returned to values which could be interpreted as within normal limits only serves to accentuate the chronic nature of the disturbance in sugar metabolism which was present

Signs of abnormal cholesterol metabolism in three of the patients are a further indication of the disturbed metabolism Finally, the high incidence of clinical diabetes in relation to coronary artery disease has long been recognized [4 14]

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4 Levine S L and Brown C L Medicine 8 245 (1929)
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TABLE 1.—Glucose Tolerance Tests in Myocardial Infarction

Case	Name	Sex	Age	Day of Blood Chemistry*	Glucose Tolerance Values†			Highest Blood Pressure‡	Remarks
1	M. G.	F	65	18th day	82	122	137	160/90	Anterior infarct
				38th day	83	174	152		
				43rd day	90	145	184		
				2nd month	91	138	159		
				4th month	112	167	178		
				7th month	109	154	219 (+)		
				13th month	86	107	205		
2	J. G.	M	48	10th day	86	134	117	180/90	Posterior infarct; xanthoma of eyelids
				21st day	92	108	164		
				28th day	81	119	149		
				34th day	96	124	121		
				4th month	106	178	167 (4+)		
				6th month	101	171	181 (4+)		
				11th month	85	133	154 (4+)		
3	J. A.	M	66	3rd day	69	104	149	130/90	Posterior infarct; angina for past two years
				5th month	90	149	193		
				8th month	70	134	156 (+)		
				1st year	76	89	142		
4	M. B.	M	59	1st month	79	125	152	160/100	Posterior infarct; blood cholesterol 240 mg.
				2nd month	79	127	184		
5	F. L.	F	46	24th day	83	169	181 (+)	190/100	Anterior infarct; hypertension for years
				3rd month	80	102	176 (+)		
				8th month	86	160	192 (+)		
6	S. H.	F	59	10th day	92	176	189	190/110	Anterior infarct
				4th month	81	129	149		
7	S. K.	M	52	6th day	79	131	152	160/98	Anterior infarct; old right-sided hemiplegia
				14th day	84	131	162		
8	M. M.	M	57	6th day	75	124	130	120/80	Anterior infarct; patient left hospital and died at home
				14th day	87	116	176		
9	N. B.	M	60	7th day	79	138	162	200/110	Diffuse myocardial damage
				22nd day	79	122	156		
10	E. Y.	F	60	2nd day		121	(fasting)	150/90	Anterior infarct; xanthoma of eyelids
				5th day	82	106	125		
				5th month	93	149	136		
11	M. L.	M	56	2nd day		102	(fasting)	140/92	Old posterior infarct; recent anterior infarct
				15th day	87	108	118		
				3rd month	86	133	124		
12	N. T.	F	53	2nd week	74	122	125	120/80	Old posterior infarct; recent anterior infarct
13	M. S.	M	61	2nd day	70	136	125	120/80	Anterior infarct
14	A. L.	M	49	6th day	99	171	169	118/80	Old posterior infarct; recent anterior infarct

* All patients were admitted within twenty-four hours after their attack. Therefore, the days the blood chemistries were taken correspond well to the interval from the onset of the infarction.

† + signs indicate glycosuria.

‡ After recovery from the initial shock within twenty-four hours, the blood pressure levels tended to remain fairly constant, and so only the highest reading obtained is given. No correlation was found between the blood pressure and the glucose tolerance curve.

To analyse the cases with less marked abnormalities: Cases 7 and 8 did not show abnormalities until after discharge from the hospital, whereas Case 9 was abnormal soon after the attack and later. In Case 14, the significance of the abnormal values six days after the infarction cannot be evaluated.

It is interesting to note that 3 patients (Cases 2, 4, 10) also exhibited evidence of disturbed cholesterol metabolism.

Glycosuria, during the test, was inconstant.

Discussion

It has generally been accepted that the glycosuria and hyperglycemia seen after myocardial infarction is a temporary condition.[1–6] Our series of cases, although small, is significant in that it tends to cast doubt upon the validity of this concept. Of 11 cases in which the test was done within two weeks after the attack, normal sugar curves were obtained in 7, abnormal in only 4. Furthermore, in 5 cases, it was only after the patient had been observed for a long period of time that the glucose tolerance test became abnormal, reaching actual diabetic values in 4 cases of this subgroup (Cases 1, 2, 3, and 4).

The theories which have been proposed to explain the hyperglycemia after myocardial infarction may be summarized as follows:

1. The hyperglycemia is caused by adrenal stimulation which is caused by the initial shock and anoxemia. Eppinger[2] has described it as caused by the outpouring of epinephrine which results as a consequence of the absorption of products of protein disturbance from the infarct.

2. The hyperglycemia has been described as a disturbance of the vegetative centers of the brain, resulting from the circulatory disturbances secondary to the infarct.[5]

3. The hyperglycemia has been considered to be caused by a coexistent hypertension.[9] With this concept, myocardial infarction need not be considered as a cause.

4. The hyperglycemia has been considered as a manifestation of diabetes, the infarct acting as

a precipitating factor to make a latent diabetes manifest [1 3]

In view of the fact that many of our cases tended to show signs of abnormal sugar metabolism long after the acute signs of infarction had disappeared, we cannot accept the concept that the hyperglycemia is a temporary phenomenon, and thus are forced to discard the first and second hypotheses Before discussing the concept that these changes are a manifestation of diabetes, it would be well to consider the effect of hypertension itself as a cause of hyperglycemia

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PREVENTION OF HEMORRHAGIC ANEMIA AFTER BLOOD DONATION IN NORMAL ADULTS

SHEPARD SHAPIRO, M.D., C. P. SEGARD, M.D., and ESTELLE N. TABACHNICK, B.A., New York City

THERE is still some disagreement in the literature on the role of copper in the mechanism of hemoglobin synthesis. In experimentally induced anemias in animals and in certain of the childhood anemias it appears to have been demonstrated adequately that copper acts as a catalyst in the conversion of stored iron into hemoglobin iron.[1–3] In the case of adults such data are equivocal, due principally to the studies having been vitiated by virtue of a multiplicity of factors. This is especially true when disease processes were present which might have influenced absorption and utilization of the metals.

An opportunity presented itself to obtain data in normal adults, healthy except for the presence of acute hemorrhagic anemia caused by the sudden withdrawal of 500 ml. of blood. Our subjects were volunteers who donated blood every two months to an organization supplying plasma to the armed forces. It is the purpose of this paper to report the results of an investigation of the hematopoietic effects of iron alone and iron plus copper in this type of hemorrhagic anemia.

Method

Fifteen volunteers, varying in ages between 22 and 50 years, agreed to cooperate in this study. All were in good health and all were "white collar" workers engaged in either office or laboratory occupations. The food intake was adequate in each case and each agreed to adhere to his regular mode of living, including dietary habits, during the interval of the study. The investigation extended over three blood-donation periods. The first was used as a control period in which the subjects were allowed to recover without medication. During the second and third donation periods, the diet was supplemented by either of two medications selected for the comparison.

These subjects reported to our private laboratory at frequent intervals for blood examinations. Complete blood counts, including hemoglobin and hematocrit determinations, were made during a short control period prior to the blood donation and were repeated twenty-four hours after the donation and once weekly thereafter until the blood values were restored to the predonation level. Hemoglobin determinations, however, were made three or four times each week during the first two weeks. All the determinations were made by the same person (E. N. T.). The hemoglobin was determined by the acid hematin method, using a photoelectric colorimeter calibrated so that 14.5 Gm. = 100 per cent.

Control Donation Period

Eleven of the 15 subjects showed precipitous depressions in the hemoglobin content of the blood, averaging 14 per cent, following blood donation. These 11, continuing their usual dietary habits and without iron supplementation, required twenty-six to forty-seven days to recover their predonation levels. The remaining 4 showed only slight anemia and their hemoglobin values were restored to their respective normal levels in fifteen to nineteen days. The average time required was thirty days. The mean values of the entire series are shown in Chart 1.

Medication with Hematopoietic Agents

Of the original group of 15, 9 continued in the second phase of the study on hemoglobin regeneration. At least a two-months' period was allowed to elapse between blood donations. Commencing two days prior to the second donation and continuing daily until the blood values equalled or approximated closely the predonation levels, the subjects were given medications containing either iron alone or iron plus copper. The iron-containing medication was administered in the form of enteric-coated tablets of ferrous sulfate. The daily dose calculated as iron was 0.21 Gm. Iron plus copper was administered in the form of tablets containing, among other ingredients, iron and copper sulfates. The amount of iron and copper administered daily was 0.50 Gm. and 0.0150 Gm. respectively, the proportion being 1 to 33.* The tablets were taken with or immediately after meals. This was emphasized because it proved to be a means of avoiding gastric disturbance.

* Each Licuron-B tablet contains: liver fraction from 10 Gm. (155 grains) of liver; ferrous sulfate, dried, 0.084 Gm.; copper sulfate, 0.0025 Gm.; thiamine hydrochloride, 0.335 mg.; riboflavin, 0.623 mg.; and niacinamide, 3.32 mg. This medication was selected for the study because it had been found to be better tolerated than other medications of this kind. The possible importance of the other factors, especially the liver fraction, is being determined by an additional study and will be reported in a subsequent communication.

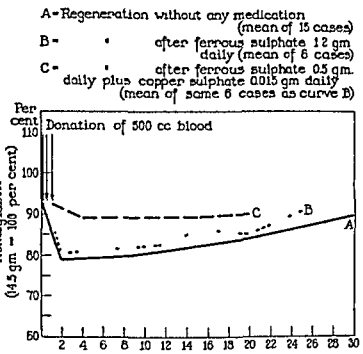


CHART 1 Illustrating blood regeneration after induction of hemorrhagic anemia by donation of 500 cc of blood

Curve (A) = no medication
(B) = iron therapy alone
(C) = copper plus-iron therapy

After the required two-month interval a third blood donation was made by these volunteers For the third donation period the medication was alternated so that the subject receiving the iron-containing tablets during the second donation period now received the tablets containing iron plus copper, and vice versa

Of the 9 *remaining subjects 6 completed the* series of donations Three were compelled to withdraw either because of intercurrent illness (one case) or failure to take the prescribed medication (2 cases)

There was a striking difference in the hematopoietic effect of the two forms of therapy When iron alone was taken the initial fall in hemoglobin was almost as pronounced as that following the earlier blood donation when no medication was taken In addition, during the first three or four days complaints of drowsiness, lassitude, and weakness were common Upper respiratory infections were occasionally reported even in the milder months of the year Recovery from the hemorrhagic anemia was gradual and generally completed in about twenty-six days, as compared with thirty days in the control study When iron-plus copper therapy preceded the blood donation the profound initial fall in hemoglobin was not observed The subsequent hemoglobin curve was an almost horizontal line and at no time did a significant anemia exist Especially after the iron and copper medication was the absence noted of the symptoms mentioned above, including the respiratory infections

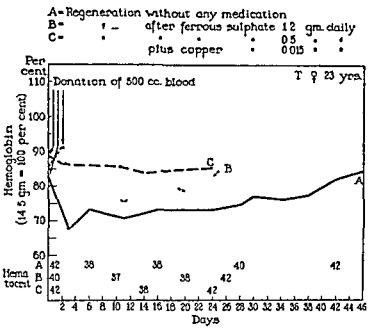


CHART 2 Typical example of blood regeneration in one of the subjects of the group illustrated in Chart 1

Discussion

The literature, both from experimental and clinical standpoints, on the relative merits of iron alone and iron plus copper as blood regenerating agents is extensive No purpose would be served by our attempting a discussion of the controversy at this time, and those interested are referred to the monographs by C A Elvehjem,[1] J H Hutchison,[2] and J H Latsky [3]

Briefly stated, it has been shown that traces of copper are ubiquitous in foods Hence, absolute copper starvation is difficult to obtain However, in most cases the ordinary means of supply appear to be inadequate to satisfy the increased demand caused by extensive blood loss

Copper functions as a catalyst for the conversion of storage iron into hemoglobin iron It is not needed for the assimilation and storage of iron During the recovery period from hemorrhagic anemia in which there is sudden demand for fresh hemoglobin copper is withdrawn from its stores and is mobilized in the circulating blood [1]

Our study shows that there is a striking difference in the hematopoietic effects of iron plus copper and iron without copper Whereas premedication prior to blood donation with iron plus copper was followed by only a slight drop in hemoglobin, premedication with iron alone was followed by a decided drop in hemoglobin which was almost as great as that observed when no medication was administered The observation indicates that copper probably plays an important role in hemoglobin synthesis, and that the amount of copper stored from the usual diet is

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Chairman's Address, Section on Anesthesiology

PNEUMATOLOGY

F PAUL ANSBRO, M D , Brooklyn, New York

(From the Department of Anesthesiology of the Kings County Hospital and the Long Island College Hospital and the Long Island College of Medicine)

THE term "pneumatology" is derived from the Greek words *pneuma*—"air"—and *logos*—"treatise" The word was invented to fill the need for a descriptive term which would be adequate to cover the allied sciences of inhalation anesthesia, resuscitation by inhalational methods, and oxygen and helium therapy

Many years ago, Meltzer[1] interested the medical world in this concept and promulgated efforts to place the science upon an equitable footing with the other medical sciences His original work was followed by that of Flagg,[2] who has so notably contributed to popularizing the word and interesting others in it The need for the association of these allied sciences is evident First, because they are all based on inhalation of gases, second, because a basic knowledge of one branch is essential for the knowledge of the other, and third, they are mutually complementary to each other The pneumatologist, hence, is one skilled in the administration of inhalation anesthesia, the resuscitation of the asphyxiated patient from whatever cause, and the indications and methods of administering oxygen and helium therapy

Modern anesthesia by inhalation has become an integral part of the medical education of today In the majority of the medical colleges of this state, the teaching of anesthesiology is now on a well-established basis The medical student is, during his course, instructed in the fundamentals of the pharmacology and physiology of anesthesia and in the application thereof in the operating room No longer is inhalation anesthesia relegated to a minor course nor is it treated as the stepchild of the medical sciences Rather, in the last decade, it has taken a great forward step and is considered in most medical schools as a course of importance by the faculty It is accepted eagerly by the students as a valuable part of their armamentarium as physicians During the past ten years, many new methods and agents have been developed and brought to perfection Cyclopropane, developed just ten years ago by Waters and Schmidt,[3] has, over the course of hundreds of thousands of administrations, achieved a place of great importance Divinyl-ether, another new agent, has found its niche The carbon dioxide absorption method has reached its zenith of perfection and the uses of the older agents, such as ether and chloroform, have been developed so as to utilize their valuable properties in better ways than formerly

The pneumatologist of today has spent his time elsewhere than at the operating table He has contributed valuable research in the pharmacology and toxicology of anesthetic agents in the laboratory and has become increasingly interested in the care of the postoperative patient He has become well versed in bronchoscopy and in many instances is prepared to perform the so-called "postanesthetic toilet" upon the airway of the patient[4] These endeavors have borne fruit not only in preventing postanesthetic complications and decreasing their incidence but also in treating complications after they have arisen and has thereby been a valuable factor in decreasing postoperative morbidity and mortality, which should be an inestimable boon to surgery

Resuscitation

Of all the branches of the medical sciences, the physician seems to know the least about resuscitation As Henderson has said, "Unless one is burned alive, the tissues of one's body always die of asphyxia"[5] Yet, in the very circumstances in which the acute asphyxias occur, the physician finds himself unable to cope with the situation and of necessity is compelled to call in the aid of laymen who, incidentally, in the form of rescue groups, are doing valuable work The most common causative factors of respiratory depression and paralysis are drowning, carbon monoxide poisoning, smoke poisoning, poliomyelitis, electric shock, drugs, mechanical suffocation, anesthetic accidents, and asphyxia neonatorum All of these causative factors end in the common result—asphyxia

In order to treat them properly, the pneumatologist follows the three rules of treatment as laid down by Flagg[6] and developed by Ruth,[7] *viz*

1 *Insure the patency of the airway* —This may be occluded by a foreign body, fluid in the respiratory tree (as in drowning), tracheal collapse following thyroidectomy, débris in the newborn

Read at the Annual Meeting of the Medical Society of the State of New York New York City May 9 1944

inadequate to meet the emergency of blood regeneration following profound blood loss.

The data reveals immediate recovery after medication with iron plus copper. Following copper plus iron the hemoglobin values described an almost horizontal line, while after iron alone an average of twenty-six days was required for restoration to the initial level and, with no medication, thirty days.

It should be noted that when adequate copper is given the daily dosage of ferrous sulfate with copper was in the order of 0.5 Gm. per day, as compared with 1.2 Gm. per day when ferrous sulfate is administered without copper. This is of clinical significance because relatively high iron medication is followed frequently by undesirable gastrointestinal disturbances.

It should again be repeated that our subjects were in good health except for the state of acute hemorrhagic anemia which had been induced by voluntary blood donations, and our data are thus free from the possibility of unknown vitiating factors. During the experiment these individuals continued their normal existences and followed their usual diets.

The practical application of these findings under present conditions should be emphasized. It is recommended that agencies obtaining blood from donors administer copper-iron medication in a form similar to that described above to prevent hemorrhagic anemia and to accelerate the regeneration of hemoglobin.

Summary and Conclusions

Using blood donors, normal except for hemorrhagic anemia resulting from blood donation, it was found that premedication with an iron- and copper-containing medication prevented the usual precipitous depression of hemoglobin following blood donation. Premedication with ferrous sulfate did not prevent this marked depression; in fact, the depression was essentially the same as it was when the medication was withheld.

Following a donation of 500 cc. of blood and after copper-plus-iron medication the hemoglobin values described an almost horizontal line; after iron medication alone a definite anemia generally appeared which required an average of twenty-six days for recovery; when no medication was given the blood values were restored to the initial level after an average of thirty days.

Whereas the average diet contains an amount of copper adequate for the usual rate of hemoglobin synthesis, the copper stores appear to be inadequate for a greatly accelerated rate of hemoglobin synthesis.

Data are presented which support the claim that copper functions as a catalyst essential for the conversion of stored iron to hemoglobin.

Acknowledgment.—Part of the expenses incurred in this study were defrayed by the Lakeside Laboratories, Inc., Milwaukee, Wisconsin. The copper-iron preparation (Licuron-B) was supplied by the Lakeside Laboratories.

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45 East 85th Street
New York City

TRANSLATION OF MEDICAL BOOKS FOR LATIN AMERICAN USE

Important books of this country, particularly in the fields of science, medicine, and technology, will be made more readily available in Spanish and Portuguese translations for peoples of the other American republics as the result of a project to be conducted by Science Service, the nonprofit scientific institution, as a part of the Department of State's broad program for intellectual cooperation in the Western Hemisphere. Spanish and Portuguese translations of American books, issued by publishers in the other American republics as well as by United States publishers, will receive financial aid under this project. Books originally published in Spanish and Portuguese will be made available in English in the United States under provisions for similar aid to United States publishers. A grant-in-aid by the Department of State provides Science Service with funds to help defray the costs of translations, to obtain and distribute copies of the translated books to libraries, institutions, and other organizations and to cooperate otherwise in making the literature of any one American republic available to other peoples on the two continents. The purpose of this two-way translation program is "to overcome the barriers raised by difference of language by making available to the peoples of the other American republics the writings which represent the thought and the cultural and intellectual life of the United States, and making available to the people of the United States the writings which represent the thought and cultural and intellectual life of the peoples of the other American republics." Suggestions as to translations needed are being received from officials, scientists, educators, publishers, and others in this country and the other American republics. This program should contribute materially to the increasing interdependence and good will of physicians and scientists in our own country and in our sister republics.—*Editorial, J.A.M.A., Oct. 14, 1944*

Chairman's Address, Section on Anesthesiology

PNEUMATOLOGY

F. Paul Ansbro, M.D., Brooklyn, New York

(From the Department of Anesthesiology of the Kings County Hospital and the Long Island College Hospital and the Long Island College of Medicine)

THE term "pneumatology" is derived from the Greek words *pneuma*—"air"—and *logos*—"treatise." The word was invented to fill the need for a descriptive term which would be adequate to cover the allied sciences of inhalation anesthesia, resuscitation by inhalational methods, and oxygen and helium therapy.

Many years ago, Meltzer[1] interested the medical world in this concept and promulgated efforts to place the science upon an equitable footing with the other medical sciences. His original work was followed by that of Flagg,[2] who has so notably contributed to popularizing the word and interesting others in it. The need for the association of these allied sciences is evident. First, because they are all based on inhalation of gases; second, because a basic knowledge of one branch is essential for the knowledge of the other; and third, they are mutually complementary to each other. The pneumatologist, hence, is one skilled in the administration of inhalation anesthesia, the resuscitation of the asphyxiated patient from whatever cause, and the indications and methods of administering oxygen and helium therapy.

Modern anesthesia by inhalation has become an integral part of the medical education of today. In the majority of the medical colleges of this state, the teaching of anesthesiology is now on a well-established basis. The medical student is, during his course, instructed in the fundamentals of the pharmacology and physiology of anesthesia and in the application thereof in the operating room. No longer is inhalation anesthesia relegated to a minor course nor is it treated as the stepchild of the medical sciences. Rather, in the last decade, it has taken a great forward step and is considered in most medical schools as a course of importance by the faculty. It is accepted eagerly by the students as a valuable part of their armamentarium as physicians. During the past ten years, many new methods and agents have been developed and brought to perfection. Cyclopropane, developed just ten years ago by Waters and Schmidt,[3] has, over the course of hundreds of thousands of administrations, achieved a place of great importance. Divinyl-ether, another new agent, has found its niche. The carbon dioxide absorption method has reached its zenith of perfection and the uses of the older agents, such as ether and chloroform, have been developed so as to utilize their valuable properties in better ways than formerly.

The pneumatologist of today has spent his time elsewhere than at the operating table. He has contributed valuable research in the pharmacology and toxicology of anesthetic agents in the laboratory and has become increasingly interested in the care of the postoperative patient. He has become well versed in bronchoscopy and in many instances is prepared to perform the so-called "postanesthetic toilet" upon the airway of the patient.[4] These endeavors have borne fruit not only in preventing postanesthetic complications and decreasing their incidence but also in treating complications after they have arisen and has thereby been a valuable factor in decreasing postoperative morbidity and mortality, which should be an inestimable boon to surgery.

Resuscitation

Of all the branches of the medical sciences, the physician seems to know the least about resuscitation. As Henderson has said, "Unless one is burned alive, the tissues of one's body always die of asphyxia."[5] Yet, in the very circumstances in which the acute asphyxias occur, the physician finds himself unable to cope with the situation and of necessity is compelled to call in the aid of laymen who, incidentally, in the form of rescue groups, are doing valuable work. The most common causative factors of respiratory depression and paralysis are drowning, carbon monoxide poisoning, smoke poisoning, poliomyelitis, electric shock, drugs, mechanical suffocation, anesthetic accidents, and asphyxia neonatorum. All of these causative factors end in the common result—asphyxia.

In order to treat them properly, the pneumatologist follows the three rules of treatment as laid down by Flagg[6] and developed by Ruth,[7] *viz.*:

1. Insure the patency of the airway.—This may be occluded by a foreign body, fluid in the respiratory tree (as in drowning), tracheal collapse following thyroidectomy, debris in the new born,

Read at the Annual Meeting of the Medical Society of the State of New York, New York City, May 9, 1944.

2. Supply oxygen to the lungs rapidly.— There are four methods of doing this:

(*a*) Mouth-to-mouth breathing. This is a most useful method, inasmuch as no apparatus is required and the means of its accomplishment are always at hand. It is a valuable method and has saved many lives, particularly in infants. It is occasionally destructive, since the overenthusiastic resuscitator is liable to exert more intrapulmonic pressure than the lung can withstand. It is important to remember that a safe intrapulmonic pressure in infants is 10–15 mm. of mercury and in adults, 40–50 mm. of mercury. Wilson[8] has stated, "The lung tissue cannot, itself, be adequately aerated (inflated) even by pressures high enough to be injurious or destructive." Henderson[9] answered, "Intratracheal insufflation is not done for the purpose of inflating the lungs. It should not inflate, and if properly done it cannot inflate. It merely supplies oxygen so deep in the respiratory tract that the blood is oxygenated without any respiratory movement of the chest." In applying mouth-to-mouth resuscitation, therefore, only a moderate pressure should be exerted, as harmful effects may ensue otherwise.

(*b*) Manual methods. The Schaeffer prone-pressure method is accepted today as the most easily applied and most efficient of the various manual methods. In recent years there has been a great impetus given to the teaching of this method to various groups, particularly first-aid classes, and many lay people have become skilled in its use. It is an essential part of the physician's armamentarium that he be skilled, too, in its application. Other methods, *viz.*, Silvester arm-abducting method, Neilson prone pressure, Eve rocking, and Thomson lifting methods have found much favor among certain groups, particularly the Eve rocking method, which is very popular in the British armed services.

(*c*) Mechanical methods. There are many and varied types of mechanical resuscitators in the field, the very number of which indicates that no one type is entirely satisfactory. Any mechanical resuscitator should fulfill the three requirements as stated:

1. Insure the patency of the airway,
2. Supply oxygen to the lungs rapidly, and
3. Do this under measured pressure.

The only mechanical resuscitator that fulfills these three requirements is one that follows the principle of Meltzer and Flagg in the use of a laryngoscope and the employment of aspiration and intubation of the larynx and trachea as its primary *modus operandi*. Any other mechanical aid that neglects the first principle (insure the patency of the airway) is not worthy of classification as a resuscitator; these are merely inhalators. A large percentage of asphyxias are caused by obstructions in the upper respiratory tract, hence a mere inhalator which supplies oxygen only to the mouth and not deep in the respiratory tree is useless as such, hence, pneumatologists are skilled in visualizing the larynx and introducing tubes into the trachea after aspiration of the passage. The frequent use of "suck-and-blow" apparatus has been instrumental in popularizing this type of machine[10] but it is useless when the cause of the asphyxia is obstruction of the airway. More recent experimental work has demonstrated that "suck-and-blow" is, in itself, effective when the airway is patent, even using inert (asphyxiating) gases.[11] The pneumatologist must determine the method of resuscitation and the type of resuscitator to be used (if at all) on each case and to remember that Henderson has said, "Prolonged, forcible, 'suck-and-blow' artificial respiration may cause injury to the lungs, shock, and death."[12] If the asphyxia is not caused by mechanical obstruction, then the various "suck-and-blow" resuscitators may prove useful. This can be accomplished without the use of high-priced instruments by merely employing the rubber bag of the anesthetic machine and rhythmically compressing it with the hand. Hand pressure, however, should be so performed as to avoid pressures that are excessive. Mechanical "suck-and-blow" resuscitators may perform this function and without danger of overdistention of the alveoli if they are based upon the action of pistons which are so calibrated as not to exceed 40–50 mm. of mercury intrapulmonic pressure for the adult, and 10–15 mm. for the infant. In the latter class may be placed the E and J resuscitator and the Emerson resuscitator. The Kreiselman resuscitator has also found favor. The Drinker resuscitator (the so-called iron lung) is a very valuable machine for use in chronic or long-standing asphyxias, such as in poliomyelitis or Landray's paralysis. It should be available in every community.

(*d*) Drug treatment. The analeptics usually employed are metrazol, coramine, alphalobeline, and lobeline hydrochloride. They occasionally prove valuable when used in conjunction with mechanical or manual methods. They are useless in asphyxia if used alone. Picrotoxin is of use in the treatment of barbiturate poisoning. It should be borne in mind in using these drugs that they are convulsants and if used improperly, or to excess, may result in a convulsive state and consequent irreparable damage to the physical status of the patient.

(*e*) Supportive measures. The pneumatologist employs heat as one of his most effective aids in resuscitation. The heat can be applied in the

form of hot-water bottles or warm blankets or a warm atmosphere It should be particularly remembered that the retention of body heat is essential in effecting resuscitation and the cold tubbing employed in attempting infant resuscitation should be abandoned. The Trendelenburg position should be employed when indicated, infusions of glucose or saline utilized, and, occasionally, cardiac stimulation by either the introduction of a needle into an auricle in an attempt to induce an auricular fibrillation which, in turn, may send stimuli through the bundle of His to the ventricles and cause them to contract, or if accessible, the arrested heart should be manually stimulated and artificial circulation thereby instituted. Modern thought on the subject of the needle into the heart is that the introduction of the needle sets up "action currents of injury" which cause the heart to contract It is felt that this is the stimulus and not the epinephrine which usually is injected through it

In asphyxia neonatorum, Flagg[6] gives the procedure, *viz*, "make the diagnosis of the degree of asphyxia present Into what class of asphyxia does this baby fall? (1) Is it really depressed? (2) Is it dying? or (3) Is it a borderline case?" Laryngoscopy is performed on the asphyxiated baby (the depressed baby does not need it) and aspiration of the airway follows If there is no reflex of the glottis (due to anoxia) put in a tracheal tube and insufflate carbogen at a pressure of 10–15 mm of mercury. This procedure is made possible only by a resuscitator that employs a laryngoscope, intubating tube, and measured pressure and has been the means of preventing many newborn

> "So soon to exchange the imprisoning womb
> For darker closets of the tomb "[13]

Oxygen and Helium Therapy

The pneumatologist has, in this category, a knowledge of treatment that all too often has been given over to the layman The various commercial companies supplying oxygen and helium therapy have performed their function so well that physicians have been wont to place the treatment of their asphyxiated patients needing oxygen and helium into the hands of laymen employed by these companies The various medical sciences have conveniently forgotten that the treatment of the asphyxiated patient with oxygen is a medical subject and not one for lay minds In ordering oxygen therapy for the patient, the physician should literally write his prescription for oxygen just as he would write any other prescription for the treatment of the patient Too often we hear oxygen ordered without any record of the dosage required Various conditions, like varying degrees of asphyxia, require varying concentrations of oxygen as well as varying lengths of time in its application

The use of oxygen in painful conditions of the myocardium[14] and in chronic pulmonary conditions is of established value[15] as well as its positive indication in the treatment of pneumonia.[16] Helium and oxygen mixtures have been found of critical value in the treatment of asthma and obstructions of the larynx and trachea.[17] Its efficient action in relieving postoperative gaseous distention can be personally affirmed by the writer Severe migraine headaches have often vanished under its influence.[18] The pneumatologist has become familiar with the indications for oxygen and helium therapy, the apparatus used in its administration, and the concentrations necessary for the adequate treatment of the conditions in which it has been found useful He is skilled in the requirements of oxygen therapy in regard to the oxygen supply, oxygen regulators, and the proper administering apparatus as well as the principles of effective therapy as regards frequent analyses of oxygen concentration and the control of cost Without these principles, the use of oxygen on the asphyxiated patient and of helium-oxygen mixtures becomes not only ineffective and expensive but also, in many cases, a therapeutic travesty

Summary

The pneumatologist is a doctor of medicine adequately trained and highly skilled in the administration of inhalation anesthesia He is experienced in the methods of and indications for resuscitation of the asphyxiated patient He has a comprehensive knowledge of the physiology of the body as regards oxygen metabolism and the utilization of the various methods employed in combating anoxemia and anoxia He literally stands at the crossroads of the medical sciences, an augury of good to the surgeon and internist, and

> "Let not ambition mock their useful toil,
> Their homely joys, and destiny obscure "[19]

142 Joralemon Street
Brooklyn, New York

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Discussion

Dr. Paluel J. Flagg, *New York City*—If one wishes to set a date for the more recent beginnings of pneumatology, which, as might be expected, has extended down the ages, he will doubtless find that inhalation therapy has led the way. Among the pneumatologists, Priestley, Lavoisier, Hickman, and Beddoes, Sir Thomas Beddoes made a formal beginning in the establishment of his Pneumatic Institute at Clifton near Bristol, England, in the year 1789. Half a century later Jackson, Wells, and Morton initiated the use of the gases nitrous oxygen and ether for the control of pain. Oliver Wendell Holmes, by calling this activity anesthesia, confined the pneumatologist to the operating room and delayed for more than half a century the third phase of this specialty, resuscitation, so ably evolved by Haldane, O'Dwyer, Meltzer, and Henderson. These men drew attention in no uncertain manner to the extramural needs for the competent pneumatologist.

The foregoing references serve to clarify the basic distinction between a restricted field of medicine and the physician who becomes active in such a field. Anesthesia is necessarily restricted by its terminology. It cannot be expanded at will. For example, it is not possible to regard the treatment of terminal poliomyelitis, electric shock, submersion, problems of high-altitude flying, chemical warfare, or carbon monoxide poisoning, as anesthesia. And yet you know and I know that where the work of other physicians ceases, when unconsciousness supervenes, ours begins. We are perfectly at home with the phenomena of unconsciousness. We, as physicians, are not only at home with the pathologic physiology incidental to this state, but we know how to induce, direct, and safeguard unconsciousness. No other group of physicians can make this claim.

As a physician I stand here today to express my debt to the field of anesthesia for the opportunity which it gives me to maintain an intimate acquaintance with the unconscious patient. My most important concern is to avoid mortality and to reduce morbidity. Sometimes this must be done at the expense of pleasing the patient. Anesthesia is my home. I do not propose to abandon it. On the other hand, the able physician does not confine his work to office practice. He responds to the call for help from those whom he is specially qualified to treat or direct.

If it be granted that general anesthesia in the average hospital is impractical without the use of nitrous oxide, oxygen, ether, cyclopropane, ethylene, carbon dioxide, and helium, and that this therapeutic use of gases, or pneumatology, includes resuscitation and inhalation therapy, it follows that this terminology must also include rectal and intravenous therapy, for that which contains the whole must contain its parts.

The pneumatologist applying pneumatotherapy in cooperation with the pneumatologic technician in anesthesia, resuscitation, and inhalation therapy provides a specialty calling for the best that medicine has to give, a specialty paralleling in scope and importance the great fields of internal medicine and surgery.

"DOCTOR JONES" SAYS—

"Alcoholics Anonymous"—ever hear of 'em? Well, sir, there's an organization that's grown up in the last few years that's doing a real, practical job. A man that's well known in the public health line—a letter he wrote awhile ago—he called it one of the most outstanding examples of practical Christian service he'd ever known. Four years ago (the last figures I happen to have) they had around 500 members, with chapters—units or whatever they call 'em—scattered over the country. They're saving 'emselves, these fellows—and some of 'em are big shots, holding important positions—but they're getting their strength to do it mainly from helping others.

A series of stories about this organization and its work (I've got a reprint of 'em here)—these articles appeared first in a paper in Houston, Texas. They were written by a newspaper man that'd been practically a down-and-out alcoholic. Not only that but he had some lung trouble and two institutions had refused to take him in: thought he was beyond help. Then, some way, he got connected up with "Alcoholics Anonymous." He'd been on the water-wagon ever since and was holding a good job on this newspaper. Like the rest of 'em, he was out to help others that were in the same pickle he'd been in. Only "alcoholics" are eligible for membership. That don't mean just drinking—not their definition. A lot of people use alcoholic beverages more or less regularly and some of 'em, once in a while when they get out with the boys, they get lit up a little. But if they can control it—stop if they want to—look at a drink and pass it up, it may be bad for 'em but they aren't alcoholics. A confirmed alcoholic, when the urge hits him, taking a drink and then more of 'em—it's just as automatic as dodging if you see something falling on you. If it wrecks his career he can't help it—not until he's "born again," however that may come about.

Being an alcoholic isn't the only qualification for membership. They've got to have a real desire to quit and recognize that they can't handle it alone. And they've got to believe there's some power stronger than their own that can help 'em: call it God or whatever they want to. Naturally they don't all come through but they're helping a lot where doctors and the rest of 'em have failed. Their batting average is good enough so I'd advise any "qualified" person to look 'em up.—*Paul B. Brooks, M.D., in Health News, July 31, 1944*

Diagnosis

CLINICOPATHOLOGIC CONFERENCES

Fourth Medical Division of Bellevue Hospital

Date: December 21, 1944

Conducted by: Dr. Harry A. Solomon

Dr. Marilyn T. Schittone: H. K., a 64-year-old German housewife, was admitted to the medical service on February 12, 1944, with chief complaints of weakness, dyspnea, and orthopnea of several weeks' duration. She had had known marked hypertension for at least seven years, with systolic readings as high as 240. The past history revealed that a radical mastectomy had been performed in 1941 for adenocarcinoma of the left breast. Her menopause at 45 had been uneventful. The patient had otherwise been well until about six weeks before admission, when she had a rapid development of dyspnea which progressed to the rest type, three-pillow orthopnea, anorexia, weakness, undue fatigue, and a moderately productive nonbloody-tinged cough. There was no known weight loss. She complained of frequent consciousness of heartbeat, but apparently did not have palpitations, pain, or edema. On the day before admission, she vomited all food and fluids taken.

Examination on admission revealed a middle-aged white woman who appeared to be ten years younger than her stated age. She rested comfortably in bed, and did not appear to be acutely ill. The skin and mucous membranes were moderately pale.

The temperature was 100.2 F., pulse 92, respiration 22, blood pressure 218/110. Head, ears, nose, and throat were negative. The fundi showed moderate narrowing of the arteries. There were no hemorrhages or exudates. The trachea was deviated to the right. The thyroid was not palpable. There was a large, healed radical mastectomy scar on the left side of the chest. The right breast was normal. There was no palpable lymphadenopathy. The lungs were clear to percussion and auscultation. The point of maximum intensity of the heartsound was in the fifth intercostal space in the anterior axillary line. There was a soft, precordial systolic blow. There were no thrills. The sounds were of fair quality. The rhythm was that of fibrillation with a rapid ventricular rate. Examination of the abdomen, rectum, and extremities was negative.

Laboratory Data: The white blood count on admission was 15,000 with a normal differential. The red blood count was 5,300,000; hemoglobin was 14.6 Gm. The urine showed 2 plus albumin and numerous white blood cells. Nonprotein nitrogen was 29. Serology was negative. On February 28 the urine showed 3 plus albumin and a moderate number of white blood cell clumps. The patient concentrated urine to 1.013 and diluted to 1.001. On March 6 the nonprotein nitrogen rose to 39. The creatinine remained normal. The white blood count fell to 12,800 on February 23 and to 10,000 on March 1, again with a normal differential. Electrocardiograms showed left axis deviation, auricular fibrillation, and occasional ventricular premature contractions. An x-ray of the chest showed sharp deviation of the trachea to the right and slight cardiac enlargement There was no evidence of metastatic deposits in the bony thorax or lungs.

Course: The patient ran a low-grade fever for two weeks. Careful examination failed to reveal a source of infection, and urine cultures were negative. The patient became afebrile in the third week and remained so. On February 25, medium moist rales were heard in both bases and the fundi showed multiple hemorrhagic areas on the right. Blood pressure at this time was 225/140. Digitalization was begun on February 29, the lungs cleared, and the heart rate slowed down to 88. The patient was discharged as improved on the twenty-sixth hospital day.

Second Admission: The patient was readmitted on June 7, 1944, with the same complaints and a history of dependent edema on several occasions after her discharge and on admission.

Examination at this time revealed a dyspneic, orthopneic woman who now appeared to be her stated age. There were medium moist rales at both bases. Percussion was normal. The heart rate was rapid and grossly irregular, with a pulse deficit of 30. Blood pressure was 190/120. The liver was three fingerbreadths below the costal margin and not tender, and there was marked dependent edema.

Laboratory Data: The white blood count on admission was 16,450, with 76 per cent polymorphonuclear cells. The red blood count was 4,180,000; hemoglobin was 13 Gm. The urine showed 3 plus albumin and many white blood cells and granular casts. The specific gravity reported at this time was 1.022. Urine examina-

tion on June 12 showed no albumin and few white blood cells with occasional hyaline casts. Nonprotein nitrogen was 52.

Course: Evidence of fluid at the right base necessitated a chest tap which was done on the thirteenth hospital day and yielded 350 cc. of clear fluid with a specific gravity of 1.015 and 180 lymphocytes.[3] On the day following tap a low-grade febrile curve which had persisted for four days before that returned to normal. On June 27 she began to vomit, complained of diffuse right upper quadrant pain, and had a temperature of 102 F. Two days later she complained of marked pain in the left lower quadrant as well. Palpation was negative but difficult because of the marked voluntary spasm of the abdominal wall. The symptoms subsided with sedation and antispasmodics. On July 27 one observer suggested that the basal metabolic rate be determined because the patient showed an enlarged left thyroid lobe which was mostly substernal, a left supraclavicular soft nodule which was thought to be aberrant thyroid tissue, auricular fibrillation, weight loss, diarrhea, heat intolerance, and stare. The basal metabolic rate was +12, cholesterol 148, esters 67. An x-ray revealed substernal enlargement of the thyroid with deviation of the trachea to the right. Electrocardiograms were as on the previous admission. The patient was given a trial with Lugol's solution for one month. Signs of progressive cardiac failure continued in spite of digitalization. The cholesterols increased to 286 with esters of 143, but the basal metabolic rate increased to +15. On the eighty-fourth hospital day the patient insisted upon discharge, saying she felt much better, and she was referred to the Thyroid and Cardiac clinics for further care.

Third Admission: The patient was readmitted on September 21, 1944, with the same complaints as before. In the period since the first admission she had lost about 40 pounds. Examination on admission revealed a markedly dyspneic, emaciated, apprehensive woman. The left base was flat to percussion with diminished-to-absent breath sounds and tactile fremitus. The heart was as before. The liver was two fingerbreadths below the costal margin. There was 1 plus edema of the ankles. The hands showed a fine tremor.

Laboratory Data: The white blood count on admission was 12,600. The urine showed 2 plus albumin and a specific gravity of 1.030, cholesterols 114, esters 87, nonprotein nitrogen 60, creatinine 1.67. An x-ray of the chest showed pleural effusion on the left.

Course: On the second hospital day the patient became disoriented. The nonprotein nitrogen had fallen to 47, with a carbon-dioxide combining power of 16 volumes per cent. A chest tap was done on the fifth day and yielded 850 cc. of fluid. On the thirteenth day another chest tap yielded 750 cc. of semitranslucent fluid which was amber in color and contained 350 white blood cells with 97 per cent lymphocytes; its specific gravity was 1.010. By this time the patient had become comatose, was anuric, and showed Kussmaul respiration. The nonprotein nitrogen was 100; the carbon-dioxide combining power was 20 volumes per cent. Creatinine was 2.5. The patient died on the fifteenth hospital day.

Discussion

DR. HARRY A. SOLOMON: This patient was known to have had persistently high blood pressure for over seven years, but, except for a breast amputation for adenocarcinoma several years ago, was asymptomatic until six weeks before admission when she developed progressive dyspnea, orthopnea, cough and profuse expectoration, and profound weakness. With the hypertensive background and the findings of an enlarged heart which was fibrillating rapidly, visceral congestion, particularly pulmonary and renal, high diastolic and systolic pressure, and eye-ground changes of advanced arteriolar disease, it was evident that she was presenting the clinical features of decompensated hypertensive heart disease. It was not easy to explain the rapid and extensive cardiac damage which was too intractable to therapy to be attributed to some minor cause reducing cardiac reserve, such as a disturbance of rhythm, transient toxic state, overload, etc. On the other hand, there was nothing in the history or electrocardiogram to indicate that the severe myocardial insufficiency was provoked by a coronary insult, and while it appeared likely that the condition was simply one of physiologic exhaustion of a hypertensive heart, the x-ray of the chest did not show the marked cardiac dilatation and extreme pulmonary congestion usually seen at this time. Likewise, no cause was found for the persistent fever and leukocytosis other than visceral congestion of heart failure, unless one inferred that silent myocardial or pulmonary infarctions were present.

On the second admission the congestive heart failure was more advanced, with liver enlargement and dependent edema, but general deterioration was very striking. Other changes noted were weight loss with evident emaciation, eye stare, tremors of hands, diarrhea, heat tolerance, and rapid auricular fibrillation. Mental alertness was strikingly acute in contrast to the extreme physical exhaustion. Therefore hyperthyroidism was suspected and the upper lobe of a

substernal goiter was felt behind the clavicle on the left when the patient was asked to cough, and the chest plate showed that the trachea was displaced to the right. The metabolism was taken and reported to be +15. With a diagnosis of hyperthyroidism it was now possible to explain the prolonged resistant fever and the refractiveness of the rapid auricular fibrillation to digitalis. Although a basal metabolism determination after iodine medication was reported unchanged, the effects of iodine in controlling the hyperpyrexia, raising the serum cholesterol, and improving the general condition of the patient were characteristic. Thiouracil was used later and this produced a further beneficial result, even a notable decrease in the size of the substernal goiter as noted on x-ray.

In the left supraclavicular region an irregular mass about 2 inches in diameter was noted. This was thought to be aberrant thyroid tissue or metastatic from retrograde extension of the malignancy. This mass was soft, however, and no other metastatic lesions were found.

On the third and final admission, the patient was *in extremis*. Pulmonary congestion was more extensive and bilateral pleural effusions recurred despite tappings, especially on the left side. Because of the highly cellular content of the pleural fluid, almost entirely lymphocytes, the possibility of tuberculous pleuritis was considered with possible relationship to matted cervical lymph nodes.

Uremic symptoms with acidosis, oliguria, azotemia, etc., appeared rapidly, but whether this renal failure was secondary to heart failure or the result of an advanced contracted nephropathy was speculative. From my clinical evaluation, I felt that the following might be expected:

1. Hypertensive disease with dilated heart, visceral congestion of longstanding heart failure, and arteriolar sclerosis.
2. Substernal goiter modified by iodine and thiouracil medication.
3. Left pleural effusion—reaction or tuberculous.

Dr. Appelbaum, what is your impression of this case?

DR. EMANUEL APPELBAUM: This is a rather complicated case. I stated that my impression was of hypertensive and arteriosclerotic heart disease with masked hyperthyroidism. The azotemia was extrarenal, caused by circulatory failure. I did not concentrate on the pleural effusion. The terminal episode is puzzling. The specific gravity was very high, and the urine does not appear to have been typical of renal failure. The facts are sufficient to warrant the diagnosis of hypertensive cardiovascular disease. But the diagnosis of hyperthyroidism is open to question. There was no response to Lugol's solution, and no significant elevation of the initial basal metabolic rate. The pleural effusion may have been on a tuberculous basis.

DR. SOLOMON: Hypertensive hearts in failure are usually dilated. This one was not. The gland in the neck was either not enlarged or not noticed on the first admission.

DR. APPELBAUM: How do you explain this patient's high specific gravity?

DR. SOLOMON: She was almost anuric. The specific gravity was high because of the small output.

DR. APPELBAUM: That makes no difference, one still can't concentrate in renal failure.

DR. SOLOMON: Dr. Nammack, what is your impression?

DR. CHARLES H. NAMMACK: I agree with you, but I do not agree about the thyrotoxicosis. I feel that the chest fluid was probably a transudate in a tapped chest and part of the patient's myocardial insufficiency. What is your case for hyperthyroidism?

DR. SOLOMON: Rapid deterioration, diarrhea, heat tolerance, auricular fibrillation, substernal mass, fine hand tremors, and stare all point to hyperthyroidism.

DR. HENRY C. FLEMING: What do you think caused the right upper quadrant pain?

DR. SOLOMON: I don't know. It may have been referred from the chest.

DR. BEECKMAM J. DELATOUR: It is my impression that this patient suffered a myocardial infarction. That would explain the right upper quadrant pain, fever, leukocytosis, and vomiting.

DR. SOLOMON: There was nothing in the electrocardiogram to suggest that the patient had one.

DR. DELATOUR: Was one done after the pain?

DR. SOLOMON: Yes; there were no changes.

DR. DELATOUR: The patient was fibrillating and that would obliterate changes.

DR. FLEMING: With right upper quadrant pain one might think of infarction of the hepatic artery or one of its branches.

DR. ARNOLD KOFFLER: I think masked hyperthyroidism is a good possibility.

DR. KATHERINE KELLEY: I think this patient had carcinomatous metastases to the pleura, explaining the effusion.

DR. ZACHARY SAGAL: Very little importance has been attached to the tracheal deviation in this discussion. I think that metastatic mediastinal malignancy was responsible.

DR. MAX TRUBEK: The sudden dyspnea is easily explained by metastatic malignancy. The

azotemia was extrarenal, the specific gravity was high, creatinine low. There was no hyperthyroidism. If anything, there was a colloid goiter.

Presentation of Pathology

DR. HENRY SPITZ:

Anatomic Diagnosis:

Generalized arteriosclerosis
Arterio- and arteriolosclerosis of kidneys
Arteriolosclerosis of pancreas, adrenals, gastrointestinal tract, spleen, liver, and gallbladder.
Hypertrophy and dilatation of heart
Sclerosis of coronary arteries, severe
Infarcts of myocardium
a. Old infarct of left ventricle with aneurysmal dilatation
b. Recent infarcts of both auricular appendages
Mural thrombi of left ventricle and both auricular appendages
Hydrothorax, bilateral
Thrombosis of pulmonary artery
Infarct of lung
Diverticulosis of descending and sigmoid colon with diverticulitis, perforation, and pelvic abscess formation
Secondary carcinoma of anterior chest wall, diaphragm, and mediastinal lymph nodes following carcinoma of breast previously removed by radical mastectomy
Chronic cholecystitis
Cholelithiasis
Adenoma of thyroid, "fetal" type, with hemorrhage and cystic degeneration
Lobular pneumonia

This case is remarkable because of the multiplicity of lesions, some of which were unsuspected but formed the basis and explained the mechanism of several symptoms which were subject of extensive clinical speculation. This patient apparently had arterio- and arteriolosclerosis of long standing with hypertension and old and recent infarcts of the myocardium in the presence of severe sclerosis of the coronary arteries without evidence of old or recent occlusion of the main branches. This type of lesion has been repeatedly described as occurring in hypertrophic hearts due to coronary insufficiency, and this mechanism seems to apply to our case. Infarcts of the auricles, though less common, have also been reported in various instances. These lesions of the heart amply explain the clinical symptoms and the postmortem findings indicating heart failure. The important lesion, however, which escaped clinical recognition, was the diverticulitis with perforation and abscess formation, which apparently caused the episode of severe abdominal pain associated with rise in temperature and leukocytosis. The lesion apparently is also responsible for increasing wasting and hypermetabolism which has been interpreted as evidence of hyperthyroidism. No retrosternal struma was found, nor was there any evidence of hyperplasia, either in the "fetal" adenoma or in the remainder of the thyroid gland. The metastases following the carcinoma of the breast were only of minor extent but locally invasive, involving skin, fascia, intercostal muscles, and nerves. It is questionable whether they represent a major factor in the evolution of the case. Lobular pneumonia apparently was a terminal event.

MUSICAL THERAPY IN MENTAL HOSPITALS

The National Music Council has conducted a survey to ascertain to what extent music is at present used in leading nervous and mental hospitals throughout the country, and what the results have been. Two hundred and nine hospitals answered a questionnaire, and these have a bed capacity which ranges from 33 to over 8,000. Only one hundred and ninety-two of the two hundred and nine used music. The rest were frustrated by war restrictions and economies, shortage of personnel, and lack of facilities. There are performances in one hundred and sixty hospitals by visiting artists, gifted patients, church choirs, bands, and glee clubs. Recorded music is played by one hundred and fifty-two institutions.

That patients like music, there can be no doubt. But is it a healing aid? Only twenty-three hospitals reported that they used music for therapeutic reasons and one hundred and thirty-four used it for both recreation and therapy. Most directors of hospitals find that "recreation is therapy." Active participation in the making of music is generally considered more effective than mere listening. Group performance develops a spirit of cooperation and fellowship and helps patients to overcome their inhibitions.

The psychiatric staff of one hospital finds that the blare and dissonance of jazz "is a disturbing influence to all types of patients." Band music, spirituals, American folk songs are soothing. But music is not a specific for mental disorders. There is even the danger that the wrong music may be used by patients to express and reinforce delusional ideas.—*New York Times, Oct. 22, 1944*

SPONTANEOUS HYPOGLYCEMIA DUE TO ISLET-CELL TUMORS OF THE PANCREAS

Report of Two Cases and Review of the Literature

ROBERT M CLYNE, M D , HORACE M LEEDS, M D , and JOHN S COWDERY, M D ,
New York City

(From the Medical Service of the Lincoln Hospital)

IT IS our purpose to present two cases of tumor of the islet cells of the pancreas, one an adenoma, the other a carcinoma There is also presented a comprehensive review of the literature on this subject of the last four years

History

With the discovery of insulin in 1921 by Banting and his coworkers a new symptom complex arose The medical profession became aware of insulin shock and the symptoms of hypoglycemia In 1924 Seale Harris[1] published three cases with symptoms he believed to be caused by spontaneous hypoglycemia due to hyperinsulinism The first operative report was by Wilder *et al*[2] in 1927 This case proved to be an inoperable islet-cell carcinoma with hepatic metastasis Two years later Graham reported the first surgical cure of a patient with an islet-cell adenoma Since that time many additional case reports of islet-cell tumors have appeared in the literature

Frantz[3] in 1940 reviewed the literature of islet-cell tumors and was able to collect 96 cases 70 were benign islet-cell adenomata, 21 were suspected islet-cell malignancies, and 5 were definite malignancies with metastasis Hanno and Banks[4] in 1943 reviewed the literature on islet-cell carcinomata and were able to collect 21 proved cases, to which they added one more case Investigation of the literature since March, 1943, reveals four additional cases of islet-cell carcinoma[5-8] To these four we wish to add a case which was first seen and diagnosed on our medical service and was subsequently reported by Ballinger[9] in 1941 as an islet-cell carcinoma arising from aberrant islet-cell tissue in the liver To the 70 cases of adenomata reported by Frantz[3] we wish to add 56 cases* culled from the world literature from September, 1939, to January 1, 1944, plus one case of proved islet-cell adenoma of our own

Including 22 suspected malignancies reviewed by Whipple[10 11] in 1941, this makes a grand total of 176 islet tumors Of the 176, 127 were benign adenomata, 27 carcinomata, and 22 suspected carcinomata

Causes of Hypoglycemia

Hyperinsulinism —(1) administration of excessive amounts of insulin, (2) tumors of islets of Langerhans, benign and malignant

Spontaneous Hypoglycemia —(1) nervous or functional, (2) hepatic origin, (3) Simmond's cachexia, (4) Addison's disease and adrenal tumors, (5) cerebral degeneration, (6) pernicious anemia, (7) Fröhlich's syndrome, (8) acromegaly, (9) progressive muscular atrophy, (10) status thymicolymphaticus, (11) hypothyroidism, (12) lactation, (13) renal glycosuria, (14) functional disturbances of the sympathetic nervous system, (15) organic diseases of the nervous system, (16) miliary tuberculosis, and (17) Posturradiation of the pancreas

In this report we are considering cases of hypoglycemia due to tumors of the islet cells The rarity of this condition was brought out by Thomas[12] He estimated that adenomata are found in 1 to 800 to 1,000 autopsies Winters *et al*[13] were unable to find a single adenoma after a review of 13,000 autopsy records at Cook County Hospital Kerwin[22] reports that 11 islet-cell tumors have been encountered among 6,700 autopsies at the University of Toronto These figures are misleading, however, since in many instances the adenomata are microscopic in size and are missed by gross sectioning of the pancreas Subtotal pancreatectomy has been done in many instances with relief of symptoms, yet no adenoma was found

The youngest patient was 7 years of age, reported by Sauerbruch,[25] and the oldest was 60 years of age, reported by Vayo[27] In one half of the cases the patients were between 30 and 50 years old However, when one separates the cases with hypoglycemic symptoms from those in which such symptoms were lacking, it is found that the lower age groups are filled almost exclusively by patients who suffered from symptoms of hypoglycemia Greenlee, Lloyd, Bruechen, and McElroy[11] are of the opinion that there is no known procedure to definitely prove that a given case of hypoglycemia is due to a tumor of the islet cells of Langerhans They remark that Whipple has established the following triad of findings in hypoglycemia as warranting surgical exploration (1) definite repeated seizures of a vasomotor or a psychic disturbance coming on during the fasting period, (2) a blood sugar reading below 50 mg per 100 cc , and (3) immediate recovery from the seizure with the intake of sugar

Two tests have been used to help establish the diagnosis (1) the insulin tolerance test and (2) response to epinephrine In performing the insulin tolerance test five units of insulin are given intravenously after twelve hours of fasting After two hours there is no tendency for the blood sugar to reach normal levels if an adenoma of the islets is present Epinephrine is administered to rule out any disturbance in glycogen reserve If the blood sugar does not rise after its administration it would tend to indicate that the hypoglycemic state might

* These cases were found in the articles cited in References 7, 10–39

be due to lack of liver or tissue glycogen, rather than to a primary disturbance in the pancreas. In the case which they reported[11] hyperfunction existed in both an adenomatous goiter and in an adenoma of the islets of Langerhans. These two conditions were corrected by appropriate surgical therapy.

Meyer, Amtman, and Perlman[42] report a review of 71 cases of tumors of the islets of Langerhans in which the diagnosis was made preoperatively and confirmed at operation. Of the 71 patients 53 were completely relieved of symptoms postoperatively, 12 died at operation or shortly thereafter, and 1 was not relieved despite the removal of an adenoma. Rudd and Walton[19] present the opinion that in cases with a definite clinical and biochemical picture an adenoma is probably always present. Accessory pancreases are known to occur and a recognition of their common positions may, in the future, aid in the search. Duff and Murray[43] report that aberrant pancreatic tissue has been reported in 370 cases, located most frequently in the wall of the duodenum (30 per cent), stomach (26 per cent), jejunum (18 per cent), ileum (13 per cent), and other rarer sites such as the gallbladder, spleen, liver, mesentery, and omentum. It seems obvious, according to those authors, that islet-cell tumors may be expected to occur rarely in one or another of these situations. Holman, Wood, and Stockton[7] report a case in which an intrapancreatic adenoma was removed and at a later operation an extrapancreatic adenoma was found. They also refer to another case in which, at necropsy, an islet-cell adenoma was found as a submucosal nodule of the duodenum. In the second case which we are presenting the carcinoma was believed to have arisen from aberrant pancreatic tissue in the liver.

The most frequent location of islet-cell adenomata is in the tail of the pancreas, but 25 per cent occur either in the head or at the junction of the head and body of the pancreas. Two or more islet-cell tumors may be present at different places in the same pancreas, as is evidenced by the fact that multiple adenomata have been found in 12 per cent of the cases. Spangler reports such a case,[37] in which three separate adenomata were removed with cure of the symptoms.

Gray,[6] in a review of nine proved carcinomata with metastases, reports that metastases were localized in the liver, mesenteric lymph nodes, and epicardium. In the case described by Gray, there was definite basophilism of the pituitary gland. This phenomenon has been described previously in cases of islet-cell adenomata with hypoglycemia. In Friedman's two cases[44] there was marked basophilic adenomatous hyperplasia of the anterior lobe of the pituitary gland and marked obesity.

Conn and Conn[21] present numerous metabolic studies by which they classify, from the point of view of clinical behavior, the various causative types of spontaneous hypoglycemia into two broad groups, namely, the stimulative hypoglycemias and the fasting hypoglycemias. The best example of the stimulative type is that condition designated as functional hyperinsulinism, in which a precipitous fall of the blood sugar to hypoglycemic levels (40 mg. per cent or below) follows the ingestion of large amounts of carbohydrate. The level of the fasting blood sugar, however, remains normal even when dietary carbohydrate is restricted. A reduction in the carbohydrate content of the diet controls the episodes of transient postprandial hypoglycemia. The fasting type of spontaneous hypoglycemia is well illustrated in cases of certain kinds of severe hepatic disease in which restriction of dietary carbohydrate produces a low level of the fasting blood sugar. A diet high in carbohydrate controls the fasting hypoglycemia. These authors point out that organic hyperinsulinism appears to include both these types. A low level of the fasting blood sugar is always found, and restriction of the carbohydrate of the diet depresses it farther. In this sense the condition may be classified as a fasting hypoglycemia. At the same time, however, a stimulative effect is seen in the fact that two to four hours after a meal the level of the blood sugar is frequently far below that observed in the postabsorptive state.

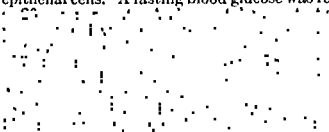
Case Reports

Case 1.—C. P., a 38-year-old married Greek woman, came to the hospital in an unconscious state in July, 1944. The history as obtained from the husband was that the patient was in her usual good health until three years prior to admission, at which time she began to have fainting spells. These episodes would usually come on around meal time and only if the patient delayed eating for one half-hour to one hour beyond the usual time. The fainting would be preceded by feelings of anxiousness and apprehensiveness and generalized tremors. If she were able to eat some food in time, the fainting attack would be avoided. She noticed that the attacks were mild at first and usually lasted from ten to thirty minutes, but as the disease progressed these attacks would often last one to two hours and would usually cease spontaneously. Nineteen days before admission she had an attack lasting two hours and on the evening of admission she had been unconscious for a period of four and one-half hours before being brought to the hospital. She averaged from four to eight attacks a year for the past three years and her husband stated that sexual intercourse would precipitate these episodes on occasions. It was revealed by further questioning that the patient had been treated for anxiety neurosis and for epilepsy by another physician for the past three years.

Physical examination at the time of admission revealed that the patient was a well-developed, well-nourished white woman of about the stated age who was comatose and could not be aroused. Her temperature was 97 F., pulse 70, respirations 28, and blood pressure 100/68. The skin was clear throughout. The patient tended to stare straight ahead and the pupils were fixed to light and accommodation. The fundi were normal. A soft systolic murmur which was not transmitted was present at the apex. The lungs and abdomen were negative. Pelvic examination revealed a markedly retroverted uterus, a long cervix with an irregular external os which admitted one finger. The adnexa were negative. The rectal examination was negative. All reflexes were physiologic. The admission impression was hyperinsulinism due to a probable adenoma of the islet cells of Langerhans. The patient was given 50 cc. of 50 per cent glucose intravenously

shortly after admission and within two minutes sat up in bed and began to carry on a conversation with her husband.

Laboratory Data: The blood Kline test was negative, blood urea nitrogen was 18 0 Urinalysis: sp. gr. 1 007, acid reaction, negative albumin, negative glucose, occasional white blood cells and a few epithelial cells. A fasting blood glucose was reported



phonuclears 69 per cent, transitional 8 per cent, lymphocytes 21 per cent, and monocytes 2 per cent

During her hospital stay the patient was given a high carbohydrate, high protein diet and sedation At no time did she have a fainting attack, even when the fasting blood glucose dipped to 26 mg per cent.

The patient was discharged from the hospital on July 22, 1944, after arrangements had been made for her to be admitted to the surgical service of Dr. Allen O. Whipple at the Presbyterian Hospital, New York.

She was admitted to the Presbyterian Hospital on July 24 Physical examination showed a temperature of 100 2 F , pulse 85, respirations 20, blood pressure 115/72 She was moderately obese, extremely lethargic, and phlegmatic Fasting blood sugar was 30 mg. per cent The same tentative diagnosis was made and she was operated upon on July 28.

At operation, a tumor was found situated on the posterior aspect and in the middle of the lower border of the body of the pancreas This tumor, on section, had the appearance of an adenoma with very little if any fibrous degeneration in it, and a frozen section was pronounced to be a typical adenoma by Dr. V. K. Frantz.

Postoperatively the patient's fasting blood sugar rose to 98 mg. per cent. The patient was discharged as improved on August 10 She returned to Lincoln Hospital on September 8 and a glucose tolerance test (Exton-Rose technic) showed a fasting blood glucose of 87 mg. per cent, one-half-hour level of 91 mg. per cent, one-hour level of 96 mg per cent, and a one and one-half-hour level of 87 mg per cent

Case 2.—N. R , a 53-year-old man, entered the hospital on February 7, 1940, in an unconscious state and the history was obtained from the patient's brother, who stated that on the morning of admission the patient felt dizzy while dressing and then lost consciousness, frothed at the mouth, and had some spasticity of the right upper extremity. He never had had any previous attacks but he did notice profuse perspiration for about one month prior to admission This was relieved by drinking pineapple juice. He found that it became necessary to drink four or five glasses a night He also noted that he was ravenously hungry in the morning and was also mentally confused. This was relieved also by the ingestion of food. He found it necessary to eat frequently during the day to avoid episodes of weakness He was told eight months prior to admission that he had high blood pressure and a "slightly damaged heart" and was given pills to lower his hypertension (aspirin, phenobarbital, sulfuric acid, and atropine).

Physical examination revealed a temperature of

TABLE 1.—GLUCOSE TOLERANCE CURVE

Exton-Rose technic	Sugar	Urines Acetone	Diacetic Acid
Fasting 42 mg per cent	0	0	0
50 cc. of 50 per cent glucose			
1 hour, 81 mg per cent	0	0	0
2 hours, 167 mg per cent	0	0	0

98 6 F., pulse 78, respirations 34, and blood pressure 190/110 The patient was a well-nourished, well-developed, somewhat obese white man of about the stated age, lying quietly in bed in no distress. The positive physical findings were: perforated right eardrum without discharge; nasal septum deviated to right, turbinates enlarged and congested bilaterally; edentulous mouth; breath sounds diminished throughout the chest; heart enlarged to the left, a soft apical systolic murmur not well transmitted; abdomen negative—both inguinal rings were dilated; erythematous areas with silver-white scales were present on knees and elbows; reflexes were physiologic.

The admission impression was: (1) syncope, cause to be determined; (2) chronic catarrhal otitis media, right, (3) psoriasis, (4) hypertensive cardiovascular disease While in the hospital the patient had numerous attacks in which there was marked hyperactivity plus unconsciousness These lasted for about an hour at a time and in most of these the patient would have a temporary paralysis of the right arm and leg plus a left facial paralysis with absent right abdominals and positive right Babinski reflex. After cessation of the attack the paralysis and other neurologic findings would disappear. Blood sugar was 38 mg. per cent and it was then considered that hypoglycemia was the probable cause of the attacks Further attacks were treated with 50 cc of 50 per cent glucose intravenously with marked improvement in the patient's condition Repeated spinal taps revealed initial pressures varying from 140 to 180 mm of water with spinal fluid sugars of 49 to 55 mg per cent, proteins of 25 to 30 mg. per cent No cells were found at any time Nonprotein nitrogen was 39 0 and urea nitrogen was 15 8 The urine showed specific gravity of 1 020, acid reaction, negative glucose and albumin, and occasional urates The fasting blood glucose varied from 28 mg per cent to 52 mg per cent, with one too low to be read. Blood cholesterol was 200 mg per cent and the blood calcium level was 10 8 mg and 10 0 mg. The blood Wassermann was negative, hemoglobin was 92 per cent, red blood count 5,100,000, white blood count 8,900 with 70 per cent polymorphonuclears, 10 per cent stab cells, and 20 per cent lymphocytes. The basal metabolism rate was −2 ;

as

stricken with a convulsive seizure at 11:15 A M This started with a cry, there was rotation of the head and eyes to the right and a clonic convulsion beginning with the

feet, and ending wi

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Blood pressure was 170/90.

11.20 A.M. Blood glucose 118 mg per cent 50 cc. of 50 per cent glucose administered Carbon dioxide—28 volumes per cent.

11:22 A.M. Second convulsion occurred. Blood pressure 122/82.
11:32 A.M. Blood glucose 298 mg. per cent. 50 cc. of 50 per cent glucose administered. Carbon dioxide—22 volumes per cent.
11:38 A.M. Third convulsion occurred. Blood pressure 120/80.
11:48 A.M. Blood glucose 446 mg. per cent.
11:49 A.M. 5 grains sodium luminal given intravenously.
12:00 NOON. Fourth convulsion occurred while 35 cc. of 50 per cent glucose was being administered.
12:15 P.M. Spinal tap—initial pressure varied between 140 and 200 mm. of water, varying with respirations; it was crystal-clear. The spinal fluid sugar was 55 mg. per cent and the total protein was 25.0 mg. The urine had 1 plus sugar.
12:19 P.M. Fifth convulsion occurred, which was shorter than previous attacks.
12:30 P.M. 5 grains sodium luminal given intravenously.
1:40 P.M. 10 cc. of 10 per cent calcium gluconate intravenously. Patient sleeping quietly, pupils small, centered, and stationary. Blood glucose 266 mg. per cent. Blood calcium 10.8 mg. per cent.
2:40 P.M. Patient moving around, response greater than before and speech becoming intelligent; understands what is said to him. Blood glucose 127 mg. per cent.
3:40 P.M. Patient about the same. Blood glucose 67 mg. per cent. Calcium 14.8 mg.
5:40 P.M. No change in patient's condition. blood glucose 92 mg. per cent. Carbon dioxide combining power 36 volumes per cent.
6:30 P.M. Shows improvement. Understands what is said to him. Reflexes intact; no residual neurologic difficulties.
7:15 P.M. Urine 2 plus albumin; negative acetone; 1–2 plus sugar; reaction acid; sp. gr. 1.015. Occasional red blood cells and white blood cells.
8:30 P.M. Patient perfectly well, without neurologic difficulties.

It was the consensus of opinion of the neurologist and other members of the staff that the seizures which this patient experienced were really epileptic in nature because of a focus somewhere in the left cerebral hemisphere and it was also believed that the hypoglycemic attacks may have precipitated these epileptic seizures. It was decided to transfer the patient to Dr. Whipple's service at Presbyterian Hospital for exploratory laparotomy in the hope that an adenoma of the pancreas or some other pathologic lesion in the pancreas could be removed and thus alleviate these seizures. A chest film taken during the hospital stay revealed slight enlargement of the cardiac shadow in the region of the left ventricle and no evidence of pulmonary lesion. Skull films showed no evidence of lesions of the skull and the sella turcica was normal. A flat film of the abdomen failed to show evidence of any calculi in either urinary tract and there were no extraneous shadows in the abdomen. A gastrointestinal series revealed no evidence of any lesion of the stomach and duodenum. On the forty-sixth hospital day, just prior to transfer, it was noted that the liver was enlarged about 3 inches below the right costal margin and it was felt that possibly the patient had a malignant process in the pancreas which had metastasized to the liver.

The patient was operated upon at Presbyterian Hospital and exploratory celiotomy revealed the presence of an inoperable carcinoma of the islet-cell tissue of the pancreas with metastases to the liver.

Following operation the patient was discharged from Presbyterian Hospital and re-entered Lincoln Hospital, where he was observed for three weeks. During this time the patient had frequent episodes of sweating, all relieved by multiple injections of intravenous glucose. He was given a high caloric, high carbohydrate diet fortified by extra feedings and orange juice ad lib. Fasting blood glucose on readmission was 73 mg. per cent with a cholesterol of 200 mg. per cent, hemoglobin 80 per cent, red blood count 4,250,000, and white blood count 7,400.

At the end of three weeks the patient was transferred to Montefiore Hospital for chronic care. The patient continued to have frequent attacks of hypoglycemia which were controlled to some extent with sugar and epinephrine. His course was downhill and he contracted pneumonia and died. Symptoms began in December, 1939, and he expired on August 24, 1940.

Postmortem Anatomic Diagnosis

Carcinoma of islets of Langerhans arising in aberrant tissue in liver with metastases to spleen, myocardium (right ventricle), lungs, kidneys, skin, suprarenals, and hilar, mesenteric, retroperitoneal, and portal lymph nodes; infarct of lung (right upper lobe); chronic purulent bronchitis; bronchopneumonia (right upper lobe); and cholelithiasis.

Discussion

The first case was a proved adenoma of the islet cells but the second case, previously reported by Ballinger,[9] has not been accepted by many as being a true carcinoma of the islet cells with metastases because of the complex picture which the case presented. Kerwin, in his review,[22] discusses the usual cerebral changes produced by fatal hyperinsulinism and he states that as reviewed by Malamud, Grosh, and Baker, they include congestion, edema, hemorrhages, perivascular lymphocytic infiltration, cortical atrophy, degeneration of ganglion cells in the cortex and basal ganglia, degeneration of neurons, and encephalomalacia. Similar lesions have been produced in the experimental animals in some cases. It is our contention that this case was a true carcinoma of islet-cell tissue and that most of the complexity of the clinical picture with regard to neurologic signs when the blood sugars were normal was undoubtedly due to cerebral damage which the patient had suffered because of frequent episodes of hypoglycemia. This opinion is further substantiated by a report of a case by Campbell, Graham, and Robinson[29] in which the patient manifested dysarthria, incontinence, and evidence of psychosis following prolonged hypoglycemic states. These disabilities persisted despite a successful removal of an islet-cell adenoma with normal postoperative fasting blood sugars and glucose tolerance curves.

Summary

1. We have presented a review of the literature of islet-cell tumors and have collected 60 additional cases, 56 of which were benign, 4 malignant.

2. We have briefly discussed the physiology of hyperinsulinism. In addition there is presented a

summary of the more interesting cases in the literature of the past five years

3 This paper adds to the literature one islet cell tumor, a benign adenoma

4 This brings the total of islet cell tumors to 176 Of these, 127 are benign adenomata, 27 carcinomata, and 22 questionable carcinomata *

* The cases presented herein were from the medical service of Dr Robert L Hutton at Lincoln Hospital

We wish to thank Dr Allan O Whipple Dr V Kneeland Frantz and Montefiore Hospital for granting the permission to use some of the records presented above

To Dr Irving Kravetz Dr Leo Klinger and Miss Fanya Woll we are indebted for the laboratory facilities and excellent case study of our second case

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CONTACT LENS SOCIETY FORMED

The society will aim to improve and promote research in and development of contact lenses, to establish a foundation for research in any or all

available to persons who are interested in the advancement of contact lenses and in their development

The board of directors is to consist of fifteen members three to be ophthalmologists, three optometrists three opticians, three contact lens technicians, and three contact lens manufacturers

thoritative information

Members of the organizing committee were Philip L Salvatori, New York, Ewing Adams, O D, Detroit, Albert L Anderson, Minneapolis, Phil E Dempsey, Toledo, Ohio, Dr Abraham Allan Rossby, New York, and Gertrud Salvatori, New York —*J A M A , Dec 16, 1944*

INTRANASAL VACCINATION FOR COLDS

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tween the groups were not observed Thus this carefully controlled study of intranasal vaccination fails to furnish any evidence of the value of intranasal vaccination for colds —*J A M A , Oct 7, 1944*

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URTICARIA IN INFECTIOUS MONONUCLEOSIS—CASE REPORT

SELVAN DAVISON, Capt., (MC), AUS

(From the Medical and Laboratory Services, Station Hospital, Santa Maria Army Air Field, Santa Maria, California)

CUTANEOUS reactions in infectious mononucleosis are not rare, and have been frequently described. Tidy,[1] in 1934, strongly emphasized their role as a part of the syndrome of infectious mononucleosis. However, it is by far the rare writer who mentions the possibility of the occurrence of a true classic urticarial exanthem accompanying infectious mononucleosis, and this writer has not been able to find any case report describing such a combination. It is felt that the description of this case, together with certain observations, will be of interest and value.

H. Letheby Tidy,[2] in a later report (1937), said that early in the history of infectious mononucleosis the occasional development of ill-defined urticarial and erythematous eruptions had been briefly mentioned. However, he emphasized that the characteristic eruptions are similar to those occurring in such diseases as typhoid fever, typhus fever, measles, German measles, scarlet fever, erythema nodosum, and even chickenpox. The two main groups are a maculopapular and a morbilliform reaction. J. R. Paul,[3] one of the originators of the Paul-Bunnell test, speaks of the maculopapular and the morbilliform rashes but does not mention urticaria. Other observers,[4–7] in writing of the skin eruptions associated with infectious mononucleosis, fail to mention the urticarial rash. The writer has seen a great many cases of infectious mononucleosis at a large metropolitan hospital, and noted no urticarial reaction in any case. Sadusk[8] and Kracke,[9] emphasizing the maculopapular and morbilliform appearance of the eruption, incidentally mention the occasional and apparently rare appearance of urticaria. Sutton and Sutton,[10] in their exhaustive treatise on skin diseases, do not report urticaria as a finding in infectious mononucleosis.

Case Report

A 27-year-old white soldier was admitted to the hospital with a diagnosis of acute nasopharyngitis. Seven days before admission, there was an onset of frontal headache, moderate weakness, and evanescent chilly feelings. These symptoms were still present when he entered the hospital.

The past history was not unusual except that he had had hay fever all his life. The family history was not relevant. He had been in the Army for fourteen months. His home was in Milwaukee, Wisconsin.

The physical findings on admission were negligible. There was slight tenderness over the right frontal and right maxillary regions. The nasopharynx and pharynx were not inflamed. The heart and lungs were normal. The blood pressure was 120/72. The pulse was 80 per minute. The temperature was 101 F. orally.

It was considered that the patient had a mild sinusitis and treatment was instituted, beginning with steam inhalations. Several hours after admission the patient suddenly complained of a severe itching and noted a rash. On examination, the eruption was found to be a classic urticaria. The lesions were generalized, raised from the surface, and varied in size, many being over 2 inches in diameter. Some of the lesions were serpiginous and others were oval in outline. The centers were generally pinkish and many had a wide, raised erythematous peripheral zone.

No treatment except unmedicated steam inhalations had been given prior to the appearance of the exanthem.

A complete investigation of the patient's past history revealed no indication of a similar episode. He had received the following injections while in the Army: During January, 1943, he was vaccinated against smallpox, typhoid fever, and tetanus. He believes that as a child he was vaccinated against diphtheria. Absolutely no other injections had been received.

Two subcutaneous injections of epinephrine, V minims and X minims, respectively, were given several hours apart. Both times there was moderate fading of the rash and some alleviation of the pruritus. Simultaneously with the second dose of epinephrine, the patient had a severe reaction. He became pale, the pulse was almost imperceptible, and he was extremely faint. Within a few seconds complete recovery occurred.

Two days after admission, he complained of a sore throat. Examination revealed moderate pharyngeal injection. For three days after admission, the patient had several recurrences of the urticaria, each less severe than the preceding one. His headache disappeared.

A white blood count taken on the day of admission was 7,200 per cmm. The differential white blood count was neutrophils 51 per cent, stab cells 11 per cent, lymphocytes 33 per cent, and monocytes 5 per cent.

The white blood count the day after admission was 6,250 per cmm. The differential white blood count was neutrophils 33 per cent, lymphocytes 51 per cent, monocytes 13 per cent, eosinophils 2 per cent, basophils 1 per cent.

Two days later the white blood count was 7,500 per cmm. with 42 per cent neutrophils, 52 per cent lymphocytes, 5 per cent monocytes, and 1 per cent eosinophils.

The next day the white blood count was 10,600 per cmm., with neutrophils 18 per cent, lymphocytes 26 per cent, and monocytes and large lymphoid cells 56 per cent.

Five days later the white blood count was 13,350 per cmm., with neutrophils 26 per cent, lymphocytes 38 per cent, monocytes 24 per cent, and large lymphoid cells 12 per cent.

The Kahn test was negative.

A heterophile agglutination test done by the Ninth Service Command Laboratory showed a titer of 1:80. This was five days after admission.

Another heterophile agglutination test taken six days later showed a titer of 1:160.

The absorption test was done using guinea-pig

kidney and no change occurred, confirming the diagnosis of infectious mononucleosis

On physical examination at this time the tip of the spleen was palpable There was a moderate generalized adenopathy, and large, nontender, firm cervical nodes, mainly posterior, were particularly noticeable The patient's temperature was normal, and the only complaint was that he felt 'washed out"

A week after admission the spleen was palpable for one and one half fingerbreadths below the left costal margin Two weeks after admission the spleen became smaller, and the nodes diminished in size and number The patient felt well but still somewhat weak, as is common in most people convalescing from infectious mononucleosis A heterophile agglutination test taken one month after discharge from the hospital was 1 80 After an absorption test the titer was still 1 80

Discussion

Davidsohn,[11] in 1929, pointed out the existence of heterophile antibodies for agglutination of sheep red blood cells in serum sickness Paul and Bunnell[12] in 1932 showed the high titers of heterophile antibodies for sheep red-cells to be a diagnostic feature in infectious mononucleosis The Davidsohn absorption test enables one to differentiate between the high heterophile antibody titers found in infectious mononucleosis and in serum sickness In the latter condition the Forssman heterophile antibodies for sheep erythrocytes will be removed by absorption tests In infectious mononucleosis the heterophile antibodies are not removed Despite this differentiation, it is of interest, considering the occurrence of urticaria in infectious mononucleosis, to speculate on the relationships between this disease and serum sickness

In the case presented, the patient had been ill for seven days before the urticaria appeared On the day of admission, the only abnormal finding in the differential white blood count was the presence of 11 per cent young neutrophils (stab cells) This is reported by Erf[13] as not unusual in early stages of infectious mononucleosis The blood count was taken before the appearance of the eruption Thirty-six hours later another blood study showed a sharp reversal of the differential count, a marked lymphocytosis and monocytosis A possible relationship is apparent between (*a*) the prodromal seven days, the ensuing rash, the reversal of the blood picture, and (*b*) the seven to eight days it usually takes for serum sickness to appear As seen in our case, the patient had received no serum The vaccines and toxoids given seven months previously could not possibly have caused the urticarial eruption observed

Could some forms of the syndrome known as infectious mononucleosis be allergic in nature? Infectious mononucleosis is certainly a protean disease For instance, the characteristic heterophile or Paul-Bunnell reaction does not occur in every case Erf[13] mentions that 40 per cent of cases do not have a positive heterophile antibody reaction The different characteristics found in many patients with infectious mononucleosis, such as varying types of skin eruptions, occurrence of jaundice, the frequent finding of a positive Wassermann in many cases, etc, is further proof of the diverse nature of infectious mononucleosis While certainly not attempting to draw conclusions from one case, one cannot help, as in this case report, presenting the possibility of an allergic reaction manifesting itself by a generalized urticarial rash and a suddenly stimulated reticulo-endothelial system pouring into the blood an excess of indigenous white cells The latter cells are typified by large abnormal mononuclear forms (large lymphoid cells) found in infectious mononucleosis

The urticaria could have been a coincidental manifestation during the course of the infectious mononucleosis However, the differential blood smear on admission, well before the onset of the eruption, was essentially normal The very next day, after the urticaria had appeared, there was a complete reversal in the differential count Therefore, one can state without hesitation that the urticarial exanthem was in this case a manifestation of infectious mononucleosis

Summary

1 The rare occurrence of a generalized urticaria in infectious mononucleosis is presented

2 The possible relationship of infectious mononucleosis to serum sickness and allergy is discussed

3 It is suggested that infectious mononucleosis is a protean disease and that in at least some cases the causation may be allergic in nature

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SOLILOQUY

With the sincere hope that Billy Shakespeare does not turn over in his grave we present

TB or not TB
That is the congestion
Consumptive be done about it?
Of cough, of cough,
We're expectorating a change very soon

—*Pfc Joseph M Gambescia, in The Hahnemannian Monthly*

Special Article

BETTER MEDICAL CARE FOR MORE AMERICANS—HOW BEST ACHIEVED?

(An address delivered at a Forum conducted by the Sections on Insurance and Drug, Chemical and Allied Trades Section of the New York Board of Trade, The Waldorf-Astoria, November 9, 1944)

DR. FREDERICK WILLIAMS, Bronx, New York

MR. MODERATOR, Members of the Committee, Fellow Participants, Ladies and Gentlemen: It is indeed a distinguished privilege and a real opportunity for me to be asked to participate in this forum on "Better Medical Care for More Americans—How Best Achieved?" I say this because I am a doctor, a doctor who is actually engaged in the practice of medicine. I treat patients! I am not a professional lay welfare worker. I am not a lay public-health educator. I am not an ambitious politician. I am not a theorist with a medical degree who has never practiced medicine but has drawn up some utopian plan from his own imagination and is anxious to win support of some foundation or some government agency to put over his scheme. In inviting me to present the view of the local practitioner I feel that your forum is rather unique. For most of the discussions of medical care recently have involved politicians, lay public-health educators, social workers, industrialists, economists, and rarely, and very rarely, doctors. Perhaps the old axiom of Mark Twain's, "The less you know about a subject the more you can talk about it," holds true in this instance. However, you have invited me, you must want my opinions, and I shall try to express them as clearly and concisely as I can in my allotted time.

At the outset I am anxious to make one important plea, and that is that all those interested in medical care take the time to ask the doctors for an opinion. Doctors have devoted their lives to medical care and they know the complexity of the problems. There are too many people who start off on a scheme of medical care and, because the medical profession does not go "whole hog" for it immediately, there is a prompt complaint that medicine opposes all progress. This is a very grave error. Let me say here and now that there is no phase of our modern knowledge which appreciates progress more than medicine.

But let us turn now to the subject of the forum: to discuss "Better Medical Care for More Americans." Let me first attempt to clarify the problem by calling your attention to a definition of medical care. Medical care is the care of the sick or the care of an individual who is ill. The prime factor in this care is the importance of having first an attending physician. This is the central focus from which spring all the offshoots which contribute to a concept of complete medical care. The additional factors are hospital service, nursing service, technical service, and pharmaceutic service. In all of your deliberations don't for one minute forget that the practice of medicine is still an art. In the laws of this State the practice of medicine is defined, and I quote the law: "A person practices medicine, within the meaning of this article, who holds himself out as being able to diagnose, treat, operate, or prescribe for any human disease." This is the legal definition of the practice of medicine in this state.

Therefore, I wish to fix finally in your minds that the practice of medicine is a practice of a profession by individuals the same as the practice of the ministry or the practice of law. We don't speak in terms of a concept of spiritual care or legal care and I wish to warn you against misunderstanding concepts of "medical care."

This practice of medicine consists of advising sick people on what to do to get well. This physician's service of medical advice to the ill—or the practice of medicine—is the basis of all medical care. This has been true down through the ages from the aboriginal medical man to the modern, scientifically trained physician of today, and will continue to be true long after we have all passed on. The other factors of medical care, such as hospital service, nursing service, scientific technical laboratory service, and pharmaceutic services, are all secondary, and should be resorted to only upon the advice of the doctor. Practitioners have felt that much of the misunderstanding of the problems of the care of the sick have arisen in the past decade or two because of a wrong concept of medical care. Great strides forward have been made by the application of facts from all of the basic sciences of chemistry, physics, and biology to aid the doctor in his diagnosis and treatment of disease. The doctor has been very busy all this time trying to keep abreast of this progress. It was his function

to know as much of the medical and scientific facts as he possibly could and then skillfully to apply his knowledge to the individual patients under his care. To do this was quite a task in these active years of scientific progress.

Public-health education, in the meantime, was left to others. Many lay people entered the field of public-health education. They were duly impressed with the scientific advances in medicine. Medical schools and teaching institutions began a practice of medicine in which all cases received complete technical "work-up" for investigation and statistical studies. This tremendous addition of science impressed those in the field of public-health education. As a result of this development, the scientific aspect of the technical factors of medical care was taken to the people as public-health education, which proved very popular in this age of technology. The idea has spread so fast and received so much "ballyhoo" that one would be led to believe that medical practice has been reduced to an exact science, such as mathematics. The science idea—of laboratory tests, of x-rays, of analyses, of electric tracings, of chemical blood tests, and of instrumental observations—has become so popularized that rarely do we hear much of the advice of the physician. It is a common experience for me to have people ask not, "How is the patient" or "What do you advise," but rather, "What was the chemical laboratory report of the blood sugar?" Every practitioner has had the experience nowadays of having a patient who once was told he had high blood pressure, come to the doctor and want to know what his blood pressure is. He does not seek advice of the doctor. He does not wait for the doctor to tell him what to do. This fear and fallacy was capitalized on at the recent World's Fair booth where they took one's blood pressure for ten cents. How much did the customers learn from this single fact? Absolutely nothing.

Gentlemen, I warn you we are heading for a nation of neurasthenics and hypochondriacs if we permit scientific medical generalizations to be taken to the people as medical care, instead of the advice of a physician who has examined a patient. This idea of science replacing the physician has spread to such an extent that now the legislators have seized upon it. The idea is being developed that every individual who does not have at his immediate disposal all the accessory services for a complete scientific work-up is receiving inadequate medical care. The doctors have been diligent in their efforts to bring the essentials to their patients. More and more hospitals are being built and more doctors are practicing medicine in limited fields as specialists. This is real progress in medical practice but still, in spite of all this, we hear the cry of *"inadequate medical care."*

Let me ask you to consider what adequate medical care is. This is a definition I wish someone would make for me. I defy anyone to define adequate medical care to the satisfaction of any community, no matter how large or small, if he is going to do it in terms of science or the accessory services of medical care. But if we consider medical care as consisting of the personal competence of the physicians in the community, it is not difficult to realize that the service rendered by Dr. Dafoe to the Dionne quintuplets was quite adequate. We all know the facts. He did not have all the appurtenances—the nickel-plated machinery—but he did render brilliant care because he was a good doctor. I hope that I have fixed clearly in your minds what constitutes medical care. I will repeat for simplicity and emphasis—medical care consists of the practice of medicine, or the advice of a personal physician to a sick patient. Accessories to medical care are: (1) hospital service; (2) nursing service; (3) technical service; and (4) pharmaceutical service. These accessories are without any value whatever unless they are provided under the intelligent direction of a competent physician.

With this concept carried in your minds, let us now consider the practice of medicine in the future. The practice of medicine in the coming years will continue as it always has through the centuries. There will still be sick people and they will still seek advice regarding their illness. For the most part they will seek the advice of physicians, and will definitely prefer the better-trained and more skilled practitioners. Many problems are bound to arise as they have in the past. Many unpredictable problems will most likely arise as a result of the economic and social upheaval which will follow this holocaust of war. There will most likely be problems of distribution of physicians, of provision of hospital beds, of bugeting of the costs of medical care, and many more which we have not thought of as yet. For me to attempt to stand here and try to offer to you a plan, even a possible plan, to cover these very complicated and complex problems for an entire country the size of ours, with its 130 millions of people, would be sheer nonsense. It is impossible! It cannot be done by me, by any one man, or any group of men!

From what the medical profession does know from experience and what I sincerely feel from my own humble practice in the profession, there are a few fundamental features of the practice which must be maintained if medicine is to continue in quality and progressiveness as it has in the past. Strangely enough these fundamentals

are also the fundamentals of our democratic American way of life. These basic fundamentals made American commerce and industry, and they also contributed in a vast measure to our medicine as we know it today. They are not new. But they are as vital and dymamic today as they were in the days of our revered George Washington and our revolution from tyranny. Freedom and liberty are the fundamentals to which I refer. Not freedom from anything—but freedom, just plain free!

In the practice of medicine, this freedom and liberty consists of: first, for all medicine, freedom and liberty from tyrannic bureaucratic political control; second, for doctors, nurses, hospitals, technicians, pharmacists, drug manufacturers, freedom and liberty of individual enterprise, and of individual competition; third, most important of all, for patients, freedom and liberty of choice of physicians and freedom and liberty to maintain the intimate personal relationship between the patient and his doctor.

If these few principles based upon our fundamental principles of American life are retained, I have no fear of the future and its problems. From these basic principles the "plan," if one can call it such, that I offer you, I draw from the natural science of biology; it is a plan of general evolution and local adaptation.

At the present time attempts are being made to budget the cost of medical care. From the practitioner's point of view the best solution seems to be voluntary insurance on an indemnity basis. This is a step in an evolutionary solution of the problem of costs. The practitioner feels that this will be sound, for it will not violate the basic principles of the practice of medicine which I have laid before you. Let come what may, we shall evolve a solution. It may well involve local state sovereignty for local adaptation throughout the country. But so long as it retains freedom and liberty, it will be the best in the world. If in the solution of any of these problems we deviate from these principles, medicine will survive, I am positive, but as to its progress or even maintenance of quality, I have very, very grave doubts. Let me remind you gentlemen that "the price of liberty is eternal vigilance."

HOW TO GET MEDICAL RECORD OF DISCHARGED VETERANS

Obviously, those who are being discharged from the armed forces and who are returning to civilian pursuits will at some time or other seek the advice of or treatment from physicians in civilian practice. In handling such cases, the civilian practitioner will be handicapped without a health and medical history of the person while he was in military service. Review of case histories is a fundamental requirement of good practice.

"What can I do in such cases?" the attending physician asks.

Here is the answer

The War Department has issued a regulation (No. 40-590) authorizing the commanding officer of any hospital where a member of the armed forces may have received treatment to release information from his or her medical record to "registered civilian physicians, on request of the individual or his legal representative, when required in connection with the treatment of the member or former member of the armed forces." It is stipulated that it is expected that the information given will be treated as confidential, as is customary in civilian medical practice.

It probably is safe to assume that the Navy Department and the Veterans Administration will cooperate in similar fashion.

Therefore, in dealing with exservicemen and -women, the attending physician should explain to them the need for this information, how it may be obtained, and suggest that the record be secured for his review so he will be better equipped to offer good advice and competent treatment. By doing so the physician will be benefiting the exserviceman or -woman as well as himself.—*Ohio State M. J., Nov., 1944*

FREE SYNAGOGUE HAS NEW MENTAL SERVICE

Patients discharged from the psychopathic wards of the city hospitals to the custody of relatives, and the families of patients committed to state institutions, will be studied and served by the newly established Mental Hygiene Committee of the Free Synagogue's Social Service Department. The committee began its work November 1.

The function of the committee, according to an announcement by Sidney E. Goldstein, director of the department, is to conduct an experiment to determine the existing needs, to examine available facilities, and to formulate a program that will adequately meet the needs in the Jewish community.

The new unit has grown out of the Free Synagogue's work with Jewish patients in the psychopathic wards of Bellevue Hospital.

"At the present time," Mr. Goldstein said, "little is known of what happens to the patients that are discharged to the custody of relatives, and a thorough study is necessary in order to learn the extent of unmet needs and the service that is required. Little is also done for the families of patients committed to the state institutions. In most of these families it is obvious there is need for study and education and adjustment. The governing principle in this work is that the family and not the individual is the unit of treatment."

The Mental Hygiene Committee, which will serve also as a center for advice, guidance, and, counsel, is located in the Free Synagogue House 40 West 68th Street, New York 23. The telephone number is TRafalgar 7-4050.—*Better Times, Nov. 17, 1944*

Postgraduate Medical Education

Programs arranged by the Council Committee on Public Health and Education of the Medical Society of the State of New York are published in this section of the JOURNAL *The members of the committee are Oliver W H Mitchell, M.D., Chairman (428 Greenwood Place, Syracuse), George Baehr, M D., and Charles L Post, M.D.*

Postgraduate Instruction for Cortland County Medical Society

POSTGRADUATE instruction, arranged for the Cortland County Medical Society, will be given Friday, February 16, at 8:30 P M at the Cortland County Hospital, Cortland, New York

Dr. Leo E. Gibson, professor of clinical surgery (urology) at the Syracuse University College of Medicine, will speak on the subject, "Infections of the Genitourinary Tract"

This instruction is presented as a cooperative endeavor between the New York State Department of Health and the Medical Society of the State of New York.

Hypertension

DR. WILLIAM GOLDRING, associate professor of medicine at the New York University College of Medicine, will lecture on "Hypertension and Hypertensive Heart Disease" at the Mercy Hospital,

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ARTIFICIAL INSEMINATION

Sir: The letter from Dr. Harper in your issue of October 14 needs an answer It would have been well had he verified and weighed his facts rather more carefully before blossoming into print about this very complex subject of artificial insemination The following points must be made clear

Artificial insemination is certainly never done without the full and willing consent of the barren husband at any clinic or in any case with which I have dealings, nor, I imagine, would it ever be by any bonafide doctor in his senses Artificial insemination from a donor is called for only in a very small group of barren marriages (perhaps 2 per cent or less of all cases seen)—i.e., those in which the husband is completely and irremediably sterile and the wife fertile, where adoption is unacceptable because the wife desperately wants a baby of her own, and where, in consequence, the marriage may be in danger of breaking down In such cases, with the full and written consent of the sterile husband, artificial insemination, carried out as a private arrangement between the couple and the doctor, may be the best possible solution, leaving the world at large to regard the child as the husband's It is

[illegible]

the type who do not seek the easy way out of finding a "fancy man." It seems possible that there will be a better and more rational selection of genes if the wife receives an artificial insemination from a semen donor on a carefully chosen panel than if in her chagrin and desperation she commits an impetuous act of adultery. In any case, if we are to concern ourselves with the quality of genes there are plenty to engage our attention in the community at large before we concentrate upon that rare bird, the artificial donor Adoption undoubtedly is the solution for some, but an adopted child carries no genes from its adopted parents, whereas a child conceived as the result of artificial insemination does at least carry them from one.

In building up a panel of semen donors it is best to choose married men with offspring and to talk to their wives first, and only if these are willing for their husbands to act as semen donors are the husbands themselves approached. It is also well to select only those couples who appear to be intelligent enough to comprehend the reason for the appeal. (In the case quoted by Dr. Harper my judgment must have been at fault.) A clean bill of health, a sound intelligence, and a high grade of fertility are all essential in a donor; wherefore the building up of such a panel is no easy matter and places a grave responsibility on the doctor who attempts it In this help might well be given by such expert bodies as the Medical Research Council and the Eugenics Society.

The legal position with regard to artificial insemination from a donor has not yet been defined in this country. In America, where artificial insemina-

[illegible]

quires full [illegible] authorities however, [illegible] tection in this matter has not yet been voiced nor has organized religion committed itself

One last point. If by "veterinary" Dr Harper had meant scientific, which it is to be suspected he did not, it would have been a well-deserved compliment to the Cinderella of the professions—*Margaret Hadley Jackson, in Letters to the Editor of the British M. J., Oct. 28, 1944*

Medical News

WAC to Name Medical Unit for General Roosevelt

A COMPANY of the Women's Army Corps, chiefly medical technicians to stretch the care of returning wounded by meager Army nurse units, is being formed in honor of the late Brig. Gen. Theodore Roosevelt, Jr., and his wife has said of it: "I know my husband would consider this a great tribute. It is just the sort of living memorial he would appreciate."

With the participation of Mrs. Roosevelt and of men the general led in two wars, recruiting plans were announced at the apartment of Mrs. Lytle Hull in the Hampshire House, 150 Central Park South. General Roosevelt, once gassed, twice wounded, and twenty times decorated, died of a heart attack induced by exhaustion, with assault troops in the Normandy invasion on July 12.

Since time to train enough nurses is lacking, the Army plans to station WAC medical technicians in every hospital having 1,000 or more beds. It hopes to build the General Theodore Roosevelt, Jr. WAC Company quickly to a strength of 500, according to Lt. Col. Eric Johnson, assistant chief of the WAC Planning Branch, United States Army, Washington. An intensive drive to recruit the new unit in New York, New Jersey, and Delaware started February 1.

Mrs. Oswald B. Lord, chairman of the 2d Service Command civilian advisory committee for the WAC, announced this fact.

The Wacs will perform such ward services as taking temperatures, shaving the wounded, and keeping records, thus freeing nurses for other duties. More important, explained Captain Gill Robb Wilson, aviation editor of the New York *Herald Tribune*, they will provide "the feminine presence" which is essential to rehabilitation.

General Kirk Supports Nurse Draft Bill

ARMY hospitals in this country are receiving 30,000 to 32,000 patients monthly from foreign war theatres, as compared to 8,500 a month in the first half of 1944, Maj. Gen. Norman T. Kirk, surgeon general of the Army, testified today before the House Military Affairs Committee, in support of legislation to draft nurses.

This increase in the number of casualties, which includes the battle of the "bulge" in France, has caused the patient load in hospitals to rise in double the number of those being released, he added. Nearly 15,000 patients monthly, according to the general's testimony, are leaving Army hospitals to be returned to duty or to be discharged from the service.

Since May, "our patients requiring nursing care have increased from 260,000 to 450,000," but in the same period, despite appeals, there has been an increase of only 2,000 in Army nursing personnel, General Kirk pointed out.

"The increasing number of battle casualties, added to those requiring hospitalization because of sickness and disease, have greatly increased the demand for nurses," he continued. "American soldiers are entitled to, are receiving, and will receive the best medical care we are capable of giving."

The Army must have nearly 60,000 nurses at this time to furnish adequate nursing service to the soldiers. There are only about 42,000 women in the Army Nurse Corps as a result of volunteering, although "many others have volunteered but have been unable to meet the physical and other requirements," General Kirk said.

Actually, Army hospitals in this country are understaffed, he reported, because at least 60 per cent of the Army Nurse Corps are used to fill the minimum overseas requirements of one nurse for every twelve hospital beds. In this country the minimum requirements call for one nurse to every fifteen beds.

He explained that these requirements accounted for his stipulation of an additional 18,000 nurses, since the ratio in general hospitals at home is in practice one nurse for every twenty-five beds and there is need for additional nurses for overseas duty to assure the maintenance of the one-to-twelve ratio. Furthermore, many nurses have served in foreign theatres for a long time and should have an opportunity for rest, he added.

On the basis of increasing casualty lists and insufficient response to volunteer appeals, General Kirk declared that the additional number of nurses could be obtained only by extension of Selective Service legislation, particularly in view of the Army's experience last year.

General Kirk gave his approval to the continuation of the program of obtaining Army nurses on a voluntary basis, and conceded that it might be possible to obtain in this way a large proportion of the number needed.

Following General Kirk's testimony, the committee went into executive session to hear Maj. Gen. George F. Lull, deputy surgeon general, who supplemented his statement with detailed charts and statistics showing the development of the Army Nurse Corps.

The Representative explained that it was not intended to keep inducted nurses at the level of privates, but to raise them to the rank of second lieutenant in the Army of the United States after their induction, even though they might be drafted technically as privates. This view was supported by General Kirk.

American College of Surgeons Defers War Sessions

THE American College of Surgeons has deferred for the time being its 1945 series of War Sessions, four of which were to have been held in February, according to an announcement by Dr. Irvin Abell, Chairman of the Board of Regents. Dr. Abell states that plans had been completed for the February meetings because earlier indications were that sessions of a strictly educational nature, limited to relatively small local areas, would be sanctioned by the War Committee on Conventions, but

it now develops that the transportation crisis is so

plies

The American College of Surgeons has voluntarily omitted its annual Clinical Congress ever since the United States entered the war, in order to aid the war effort by minimizing the demands upon transportation facilities The War Sessions were devised as a wartime expedient to preserve the educational values in so far as possible with greatly lessened de-

rvices

to have been held in

isville on February 5,

, and in Cleveland on February 27.

Parran Outlines Health Insurance

DR THOMAS PARRAN, surgeon general of the United States, outlined a broad public-health program based on social insurance in a speech January 19 in observance of the dedication of the new $120,000 United Automobile Workers, CIO, Health Institute.

"It is obvious," he said, "that the financing of medical care of the individual, as a part of the program for total health care, should include some arrangement for prepayment"

The health program which he outlined would possibly be based on a combination of insurance and

tics, even though these smaller units were used primarily as emergency or feeder units for larger hospitals

The program should also assure "adequate numbers of health and medical personnel," and tax funds should be made available for the expansion of professional education, he said.

He advocated full-time Health Departments in

institutions He called for improvement in the country's sanitary facilities by means of the construction of public water and sewage systems

National Research Foundation Awards Medals

MEDALS for distinguished research during the year 1944 have been awarded by the National Foundation for Eugenic Alleviation of Sterility, Inc, to Dr John Rock and coworkers of Brookline, Massachusetts, for achieving fertilization of the human ovum in vitro and carrying it to the three cell stage, and to Drs Waldo B Edwards and Robert A Hingson, Surgeons, United States Public Health Service, for their achievements in continuous caudal analgesia in obstetrics

Consultation Service Psychiatric Conference Held by Army

THE first Consultation Service Psychiatric Conference was held at Aberdeen Proving Ground, Maryland, January 8, 9, and 10 In addition to the consultation service psychiatrists, representatives from each of the Army training centers also attended The purpose of the meeting was threefold to discuss common problems and procedures, to standardize techniques and procedures in the various consultation services, and to better acquaint the consultation service psychiatrists with recent and contemplated changes in War Department policy. Discussions emphasized prevention rather than treatment

Officers from the Surgeon General's Office who

illiam C

sychiatry

Q. Brill, MC, Chief of the Psychiatry Branch, and Capt. John W Appel, MC, Chief of the Mental Hygiene Branch

Army Neuropsychiatric Nursing Schools

NEUROPSYCHIATRIC nursing schools are now in operation in five service commands, and within the next few months will be established in all service commands in the United States These schools offer a three-month, on-the-job training course under the country's leading neuropsychiatrists

Enrollment is made up of Army nurses who volunteer for the training, and a certificate of neuropsychiatric nursing is awarded each on completion of the course At least two neuropsychiatric nurses are assigned to each general hospital in this country and to the staff of each general hospital organized here for service abroad

County News

Albany County

Dr Edward S Rogers, assistant state commissioner of

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Freund,

representing the county society; Arthur Shepard, of the Equitable Assurance Company of America, and Milo Lathrop, Schenectady, field director of the Union for Electrical Workers

Bronx County

The regular meeting of the county society was

held at Burnside Manor on January 17 at 8:30 P.M. Following the executive session Dr. Arthur M. Fishberg spoke on "High Blood Pressure and Its Treatment," with discussion by Drs. John Duff and David Greenberg.

Chemung County

Chemung County's goal in the March of Dimes campaign was repayment of the $30,000 received last year from the National Foundation for Infantile Paralysis for care of polio patients.

The quota was set by the Chemung County Chapter, which also announced appointment of Oscar F. Kerlin as chairman of a special infantile paralysis educational committee.

Mr. Kerlin appointed personnel of the new committee which included representatives of public and parochial school health departments, members of teaching staffs in local nurse training schools, a representative of the Chemung County Medical Society, and a county school nurse.

The aim of the committee is to utilize educational material available and to expand winter and summer programs for handicapped children.*

Dutchess County

A meeting of the county society was held in the Pavillion of the Hudson River State Hospital on January 10 at 8:30 P.M.

Colonel Gillespie, of the British Army, spoke during the scientific session on "Interchange of Medical Ideas between the U.S. and British Armies: the Newest in Army Medicine."

Erie County

Preliminary arrangements for its annual campaign for funds with which to carry on its projects in Palestine have been virtually completed by Buffalo Hadassah, Women's Zionist organization. The campaign was inaugurated at a meeting January 13 in the Niagara Room of the Hotel Statler. Mrs. Moses P. Epstein, of New York City, National President of Hadassah, was the principal speaker.

For many years Hadassah has helped finance the famed Hadassah-Rothschild-University Hospital and Medical Center on Mt. Scopus in Jerusalem.

To this year's budget in connection with this undertaking has been added the construction cost of a Tuberculosis Surgical Wing and a 250-bed tuberculosis sanatorium at the hospital, the purchase of x-ray units and laboratory equipment, and the institution of an occupational therapy program for cured patients.*

. . .

A young Buffalo physician who thought he had been on every possible type of mission during his days as an intern at Emergency Hospital is believed to be the first doctor in the United States to use a helicopter to reach an injured man.

He is Dr. Thomas C. Marriott, resident physician at Bell Aircraft's Niagara Falls Plant, who was flown by helicopter to the aid of Jack Woolams, Bell's chief test pilot, who was snowbound in a farmhouse near Lockport where he had walked after bailing out of a P-59A Airacomet.

The helicopter was summoned from the Bell facilities at Gardenville after Dr. Mariott's ambulance became stalled in snow-clogged Transit Road.

"My brief trip in the Bell helicopter was only my third airplane ride," the physician said, "and I can see where the helicopter can be invaluable in situations like the one which confronted us."*

Greater New York

The seventy-seven voluntary hospitals in New York City were asked by Dr. Edward M. Bernecker, Commissioner of Hospitals, to admit alcoholics who are not mental cases, the commissioner said on January 4. He asked them to accept his proposal by January 15 when the thirteen general hospitals operated by the department start admitting this type of drinker.

Their acceptance of the plan, Dr. Bernecker said, would help take the load off the city institutions, which heretofore was carried almost wholly by the psychiatric division in Bellevue Hospital. If the voluntary hospitals refuse, he said, they will be asked to send alcoholics to the nearest general hospital o the Department of Hospitals in their district.

The new setup went into effect in Bellevue Hospital on January 2. Dr. S. Bernard Wortis, director of the psychiatric division there, called it a "foresighted step." Only a minority of inebriates accepted over the years by the alcoholic ward in his division needed psychiatric care, he said.

The magnitude of Bellevue's alcoholic work was shown by the Department of Hospitals through the number of admissions for this cause. In 1942, 10,575 persons were admitted for alcoholism; in 1943, 8,105, and in 1944, 8,562.

For many months the hospitalization committee of Alcoholics Anonymous, the organization of alcoholics which has helped others to control drinking, has advocated cooperation by the city's hospitals in the care of persons suffering from alcoholism. So far, allocations of from ten to fifteen beds have been made in two semiprivate hospitals.

Dr. Bernecker said, "A lot of alcoholics are not psychiatric cases and there's no reason why they should not be treated in the medical wards of the department hospitals."

"It's a lot better than putting them in jail, which is what happens to them in many other cities," Dr. Wortis said. "They are sick people and they must be treated like sick people. The change will mean better care. Alcoholism will be treated in the medical wards like any other medical problem."

Most of the alcoholics free of mental illness have other illnesses, said Dr. Salvatore Cutolo, deputy medical superintendent of Bellevue. As with all other patients, they will be given a complete physical examination and, if necessary, hospital care will start immediately, Dr. Cutolo said. Because of their duties with their specialty, he said, the Bellevue psychiatrists have been unable to do this.*

. . .

James M. Cecil, an advertising executive, will head the Committee of Public Information of the Red Cross 1945 War Fund Drive of Greater New York, which will be started on March 1, it was announced by Walter L. (Red) Barber, city-wide chairman of the campaign.

Mr. Cecil has served in the same capacity in three previous Red Cross drives. In addition, he is chairman of the Committee on Public Information of the New York chapter of the Red Cross. In 1942 he was public-relations chief for the United Service Organizations campaign.

Vice-chairmen of the committee are Samuel D. Fuson, vice-president, Arthur Kudner, Inc.; Clarence L. Law, vice-president, Consolidated Edison

* Asterisk indicates that item is from a local newspaper.

Company, Mrs N. Peter Rathvon, serving her second year as vice-chairman, and Miss Dorothy Shaver, vice-president, Lord and Taylor *

Jefferson County

The regular meeting of the county society was held January 11 at the Black River Valley Club in Watertown Following dinner at 6 30 P M Dr Samuel W Hartwell, professor of psychiatry at the University of Buffalo School of Medicine spoke on 'The Recognition and Management of Psychiatric Problems in General Practice'

* * *

Dr Grosvenor S Farmer, dean of the medical profession in northern New York celebrated his ninety-fifth birthday on January 6 He was the guest of honor of the Black River Valley Club at a testimonial dinner given at the club in observance of the anniversary

More than 100 men—members and guests of the social organization—gathered in the spacious ball room of the club, where a turkey dinner was served to honor the pioneer physician and the club's oldest member

Tributes were paid the nonagenarian by Mayor Charles A Winslow, the toastmaster for the occasion, Dr George F Bock, Seymour M Jones, and Attorney Charles A Phelps, who were the speakers on the program

Attorney Phelps, the last of the speakers, concluded his remarks by presenting to the guest of honor a purse of several hundred dollars as a gift of the club

Responding to the tributes paid him by the four speakers, Dr Farmer closed the celebration with an address in which he expressed his deep gratitude to his fellow clubmen *

Kings County

The second meeting of the year 1945 of the Section on Laryngology, Rhinology and Otology of the Medical Society of the County of Kings and Academy of Medicine of Brooklyn will be held on March 28 at the Kings County Medical Society Building The program will consist of a symposium on rhinoplasty Dr Gustave Au Triebt of Manhattan, will be the guest speaker He will present many valuable technical hints and principles based upon his [illegible] Dr Reuben Kayser, [illegible] cussing submucous [illegible] toward improving [illegible] asal physiology Dr Kayser will present a new technic for correcting the dislocated and obstruct- [illegible] with and without ex- [illegible] Gerald O'Brien, of [illegible] nsive plastic surgery with the U S Navy, and who has now returned to private practice, will discuss both papers

The entire medical profession is cordially invited to attend the meeting

* * *

A stated meeting of the county society and the Academy of Medicine of Brooklyn was held at 8 45 [illegible]

the Public" Dr John J Masterson presented a medal and a scroll to the retiring president, Dr Leo S Schwartz

* * *

A cooperative program in which Brooklyn hospitals and the Long Island College of Medicine would provide, after the war, additional internships, resi- [illegible]

Dr Curran offered his plan at a meeting of the board of directors of the Swedish Hospital His address was part of a series of talks he is making before the boards of Brooklyn hospitals to show how the borough's hospitals and the college can join to meet the challenge posed by the return of the 2,400 doctors from Brooklyn who are now in the armed forces [illegible]

graduate and postgraduate levels, in order to insure an adequate supply of physicians for Brooklyn during the postwar period *

* * *

Several Brooklyn doctors in the armed forces have recently been awarded the Bronze Star Medal They are Maj Anthony S Terranova, 'for meritorious achievement", Capt Seymour Reissman, 'for heroic action near———on July 19, 1943", and Col Alfonso M Libasci, for "meritorious service in planning medical activities in support of the first Philippine operation"

Monroe County

Basil O'Connor, president of the National Foundation for Infantile Paralysis, made his first visit to Rochester on January 11, Louis A Wehle, state director of the Foundation's 1945 fund raising appeal, announced

Mr O'Connor, also president of the American Red Cross, opened the 1945 appeal of January 14–31 at a dinner at the Hotel Seneca on January 11 He returned recently from an extensive tour of Europe and his visit here will be one of the few public appearances he has made since his return

As a curtain-raiser for the 1945 fund appeal, the county society, through its orthopaedic care committee, sponsored a special broadcast over WHAM at 2 30 P M on January 30, Dr Henry Baker Crawford, chairman, announced recently Al Sigl was master of ceremonies and speakers were Dr Crawford, Dr West J Altenburg, New York State regional director for the Foundation Dr R Plato Schwartz, and Dr William L Bradford The broadcast presented a report of scientific progress last year in the control of polio It was planned to give an electrical transcription of the broadcast to Presi- [illegible] on January 31 [illegible] ts of state WHAM's *staff and management, Gannett National Service,* and the county medical society *

* * *

"A Just and Lasting Peace" from the psychiatric point of view was the subject of an address on January 8 in the auditorium of Colgate Rochester Divinity School by Dr Smiley Blanton, psychiatrist and writer

The third in a series of lectures at the school on "Postwar Reconstruction," the address was open to the general public.*

Nassau County

Dr. James C. Walsh, superintendent of the Nassau County Sanatorium, Farmingdale, presided at the thirty-fourth clinical session on chronic pulmonary diseases at Cornell University Medical College amphitheater, New York City, on January 10.

The meeting, under the auspices of the Tuberculosis Sanatorium Conference of metropolitan New York, of which Dr. Walsh is chairman, was announced by the New York Tuberculosis and Health Association.*

New York County

A testimonial dinner was tendered Dr. Raphael Lewy at the Hotel Commodore on January 11. Dr. Lewy retired on December 31, 1944, after more than thirty years' public service as Chief Medical Examiner of the New York State Department of Labor. He is known as a pioneer in industrial medicine and surgery.

Dr. William J. Jackson was chairman of the dinner committee.

• • •

The New York Diabetes Association was addressed at the New York Academy of Medicine, January 13, by Maj. Isadore Arthur Mirsky, MC, on "What is the Cause of Diabetes in Man?" and Dr. John P. Peters, of New Haven, Connecticut, on "Use of Carbohydrate in Diabetic Acidosis." A round-table discussion by a panel chosen from a group of members from the council of the American Diabetes Association concluded the session.

• • •

The class of 1895 of the Columbia University College of Physicians and Surgeons will hold its fiftieth anniversary dinner at the Century Club, May 15. A feature of the dinner will be the presence of a 1945 graduate of the college as a guest of the class group to answer questions that were given to the 1895 class. According to Dr. Theron W. Kilmer, class president, the class was the largest one ever to graduate at Columbia, having 202 members.

• • •

The New York University College of Medicine has announced three postgraduate courses which started in February. One on internal medicine is given by Dr. Charles H. Nammack and his associates. One on clinical gastro-enterology, conducted by Dr. Zachary Sagal, was designated for practicing physicians. The lectures are preceded by demonstration of patients in the wards. The third course is conducted by Dr. Otto Steinbrocker on arthritis and rheumatic disorders. Additional information may be obtained from the secretary of the New York University College of Medicine.

• • •

The Bronze Star Medal was recently awarded to Capt. Samuel S. Pasachoff, formerly of New York City. The citation read "For meritorious service in connection with military operations against the enemy as general surgeon, 45th Evacuation Hospital, Semimobile, from Nov. 24, 1943, to Aug. 1, 1944 in England and France. Captain Pasachoff performed skillful operations on wounded soldiers, often going for long periods without rest or relief. In addition he designed and constructed numerous surgical articles which proved highly essential to the efficient operation of the hospital. The professional skill, ingenuity, and devotion to duty displayed by Captain Pasachoff reflect credit on himself and the military service."

• • •

Columbia University College of Physicians and Surgeons has received a grant of $14,500 from the Commonwealth Fund of New York to be applied to the study of respiratory physiology in the department of medicine.

• • •

Dr. L. Everard Napier, formerly director of the School of Tropical Medicine of Calcutta, India, was appointed visiting professor of tropical medicine at the New York University College of Medicine for the months of January and February of 1945. This was made possible by a grant received from the Commonwealth Fund. During this time Dr. Napier gave several special lectures to the faculty and student body and held conferences with students.

• • •

The Association for the Advancement of Psychotherapy met on January 26, at 8:30 P.M., in the Academy of Medicine Building. Drs. Anthony Bassler, Samuel Weiss, and Franz J. Lust spoke on selected borderline topics in gastro-enterology and psychotherapy, followed by general discussion and election of officers.

• • •

Dr. J. Burns Amberson was re-elected president of the New York Tuberculosis and Health Association at the annual meeting of the Corporation and the Board of Directors held on January 22. Other officers elected were Dr. Edward P. Eglee, first vice-president; Mrs. Myron I. Borg, second vice-president; Daniel Paul Higgins, secretary; and Raymond Atkin, treasurer.

Elected to serve on the Executive Committee were Dr. Donald B. Armstrong, Dr. George Baehr, Bailey B. Burritt, Dr. William B. Dunning, Dr. Edward P. Eglee, Dr. Kendall Emerson, Mr. Daniel P. Higgins, Dr. James Alexander Miller, Dr. Harry S. Mustard, Dr. H. McLeod Riggins, Mrs. Ruth Logan Roberts, and Dr. Amberson, ex officio.

Representatives to the Executive Committee from the Association's branches in the Bronx and Staten Island will be appointed by the president.

Elected to serve on the Council of the Tuberculosis and Health Associations of Greater New York, which includes the New York, Brooklyn, and Queensboro tuberculosis and health associations, were Alfred C. Howell, Dr. Riggins, and Winthrop A. Wood.

Dr. Edith M. Lincoln and the Hon. Newbold Morris are new members elected to the Board of Directors in the class of 1948. Re-elected in this class are: Dr. Armstrong, Mr. Atkin, Dr. Baehr, Mrs. Borg, Dr. Leverett D. Bristol, Dr. E. H. L. Corwin, Dr. Louis I. Dubin, Dr. Dunning, the Hon. Albert Goldman, the Very Rev. Msgr. William R. Kelly, Dr. Foster Murray, Dr. George G. Ornstein, William C. Thompson, and William O. Van Velson.

Also elected to the Board of Directors were Dr. Edward M. Bernecker, Commissioner of Hospitals,

Dr. Joseph Golomb, Dr. Harry S. Mustard, and Dr. C. C. Wilson.

The annual all-day conference of the Association was held at the Hotel Pennsylvania on February 7.

Oneida County

A local committee has been organized in Utica under the chairmanship of Dr. F. John Rossi to conduct a campaign for funds with which to purchase medicine for Italy.

Seals will be sold locally by the committee which is working in cooperation with the National American Medical Relief for Italy Committee. Dr. Charles Muzzicato, of New York, is state chairman.

Dr. Michael Ruggiero is secretary of the local group and Philip Brindisi, treasurer. Members of [illegible] Rufus P. Cavallo, Dr. [illegible] Merlini, Frank Dele-

The local committee is planning to raise from $2,500 to $5,000 in the campaign. Proceeds of the sale of the seals will be sent to New York, where the medicine will be purchased and sent to Italy. Sponsors said the movement has the sanction of the Federal Government.

Onondaga County

[illegible] Dr. George C. Goewey; vice-president, Dr. [illegible] Street; secretary, Dr. M. C. Hatch; treasurer, Dr. G. R. Lewis; council members, Drs. J. E. Delmonico, C. D. Post, and C. F. Potter; trustee, Dr. J. G. Fred Hiss. Dr. Goewy succeeds Dr. Carlton F. Potter.

Ontario County

The first quarterly meeting of the county society was held at the Canandaigua Hotel in Canandaigua on January 9, opening with a business meeting at 5 P.M. Dinner was at 6:30 P.M. and was followed by the scientific session at 7:30 P.M.

Dr. Earle B. Mahoney, assistant professor of surgery at the University of Rochester, gave a paper on "Chest Surgery."

Queens County

The regular meeting of the county society was held on January 19 at 4:30 P.M. at the County Society Building. Dr. Joseph D. Hallinan, attending surgeon and chief of peripheral vascular service, spoke on "Peripheral Vascular Disease." A motion picture entitled "Surgical Treatment of Varicose Veins" was shown.

* * *

Dr. Charles Gordon Heyd, of Manhattan, former president of the American Medical Association, addressed the American Association of University Women, Queens Branch, on January 8 at 8 P.M.*

Rockland County

Dr. Bart Corsentino has been appointed Health Officer of the village of West Haverstraw for a four-year term to succeed the late Dr. Francis A. Glass, of Haverstraw.

The new health officer was graduated from Columbia University, College of Physicians and Surgeons, in 1934. Thereafter he interned at and was associated with Morrisania Hospital, St. Luke's Hospital, and Harlem Hospital in New York City, and also Greenpoint Hospital, Brooklyn. He began the [illegible] land County ever since.*

* * *

The radio program "We, the People" dramatized the life of the late Dr. Francis A. Glass, of Haverstraw, on January 7. The broadcast was arranged by Joseph Hill, of Valley Cottage, the program director.*

Schenectady County

Thirty thousand men were rejected by selective service before Pearl Harbor for functional speech disorders which teachers and doctors should have diagnosed and cured at school age, Dr. Frederick Van Doren Martin, director of the National Institute for Voice Disorders at Bristol, Rhode Island, [illegible] and nurses at a [illegible] John E. Burke,

Suffolk County

Sponsored by the Medical Board of the Huntington Hospital, a series of lectures on important and timely medical subjects has been planned for the general public. The first in the course was held in Huntington Station, on January 18, at 8:15 P.M. The speaker of the evening was Dr. Harry J. Worthing, superintendent of Pilgrim State Hospital, whose subject was "Mental Disease—Ideas Old and New."

The committee arranging this course consists of Dr. Burdge P. MacLean, of Huntington, *chairman;* Dr. Anthony Cherry, of Huntington Station, Dr. Max Kimbrig, of Huntington, and Dr. Walter Novotny, of Northport.

Wyoming County

For the fifty-ninth time, Dr. Mary Greene entertained the Wyoming County Medical Society at the [illegible]

UPSURGE OF DISEASE A POSTWAR PROSPECT

Tuberculosis, syphilis, cancer, heart disease, and other killers of mankind show no signs whatsoever of adopting a forty-hour week; instead, there is every reason to believe that unless society continues to press its fight against them with undiminished vigor we may shortly see an upsurge in their incidence as we did during and following World War I.—*E. E. Kleinschmidt, M.D., in Ohio State M. J.*

Deaths of New York State Physicians

Name	Age	Medical School	Date of Death	Residence	Cause
Manfredi Benanti	76	Palermo	October 30	Manhattan	Chronic myocarditis
Martin Biederman	47	P. & S., N.Y.	January 7	Manhattan	...
Harry Bock	—	Bellevue	April 10	Manhattan	Generalized arteriosclerosis
George M. Bradshaw	81	George Washington	November 28	Panama	Coronary thrombosis
Arthur H. Brownell	81	Michigan	January 10	Oneonta	...
Henry C. Bugbee	63	P. & S., N.Y.	January 17	Manhattan	Heart attack
Sydney H. Carney, Jr.	81	Dartmouth	January 13	New Rochelle	...
William C. Cuthbert	71	Albany	January 14	Hudson Falls	Heart ailment
William M. Edmonds	53	Buffalo	January 11	Tonawanda	...
Warren H. Everett	76	Albany	December 20	Peru	...
Robert G. Feek	88	Trinity, Canada	December 17	Au Sable Forks	...
William W. Hall	57	Syracuse	January 3	Watertown	Coronary thrombosis
J. Richard Kevin	81	Bellevue	January 8	Brooklyn	Pneumonia
S. Stanley King	66	McGill	January 4	New Rochelle	...
Irving N. Kohler	69	Buffalo	December 29	Middleport	Heart attack
Thomas A. Martin	71	P. & S., N.Y.	January 5	Manhattan	Heart attack
Daniel E. Pugh	57	Michigan	January 11	Utica	Cardiac dilation
Fred A. Snowden	67	N.Y. Univ.	January 6	Niagara Falls	Cerebral hemorrhage
Phoebe M. Van Voast	65	Johns Hopkins	January 19	Bronx	...
Francis R. Ward	79	N.Y. Univ.	December 18	Manhattan	...
Claudius M. Warsaw	84	P. & S., N.Y.	December 30	Manhattan	...
W. Charles Willis	68	N.Y. Eclectic	July 2	Manhattan	...

COMMISSIONER STEBBINS MAKES ANNUAL REPORT ON NEW YORK CITY'S HEALTH

"The year 1944 registered for New York City its lowest maternal mortality rate, and new low death rates were attained for tuberculosis, appendicitis, whooping cough, auto accidents, other accidents, and suicides," says Health Commissioner Ernest L. Stebbins in his annual summary report, submitted to Mayor F. H. LaGuardia. "Taking into account the impact of war conditions," states Dr. Stebbins "the health of the city was remarkably good in the year just closed."

He continues, "The city's general death rate for 1944 of 10.3 per 1,000 population was lower than in 1943 (10.9 per 1,000 population) and was only four-tenths of a point higher than the record low of 9.9 set in 1941. In 1942 the general death rate was 10.0 per 1,000 population.

"Deaths due to childbirth have decreased by almost two-thirds of what they were only about one decade ago. The maternal mortality rate in 1944 was 1.8 per 1,000 live births as against a rate of 2.2 in 1943. "Diphtheria was again reduced. Thirty years ago (in 1914) 1,491 persons died from this disease in the city. In 1944, with a population of 2,500,000 more people, only seven died from this cause.

"The city's birth rate for 1944 of 16.0 per 1,000 population was below the rates of 1943 and 1942, but otherwise was the highest since 1931."—*Release from the New York City Department of Health*

TRANSMISSION OF INFANTILE PARALYSIS

"The method of transmission of the virus of poliomyelitis," the *Journal of the American Medical Association* for October 21 says in answer to a query, "has not yet been clearly demonstrated. . . . . The virus has been found consistently in the alimentary tract and stools of both patients and contacts. While a large body of circumstantial evidence supports the theory of direct contact from patient to patient, there is also the fact that the virus has been recovered repeatedly from flies trapped in epidemic areas. However, the importance of the fly as a vector has not yet been clearly demonstrated. It is not possible in the present state of knowledge to say whether the contamination of the fly with virus is a result of a disease or a causal factor in it. The seasonal incidence of . . . . epidemics, combined with the finding of virus in the human alimentary tract, stools, sewage, and flies, lends weight to the contention that poliomyelitis is primarily an intestinal disease such as typhoid and dysentery. . . . . "

A NEW EFFECTIVENESS

A GREAT CONVENIENCE

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Infron
Pediatric
(Trade Mark)

This electrically activated vaporized ergosterol (Whittier Process) is of such high potency that ONE CAPSULE is sufficient dosage for a month

The freedom from toxicity and clinical effectiveness is shown in the published work of Wolf—Rambar, Hardy and Fishbein *

Infron Pediatric is readily miscible in the feeding formula, milk, fruit juice or water—can also be spread on cereal

Infron Pediatric is now available for your prescription in the pharmacies Each package contains six capsules —sufficient dosage for six months

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Infron Pediatric is available only in hermetically sealed vials

*Wolf I J J Ped 22 396 417 (April) 1943
Rambar A C Hardy L M and Fishbein W I J Ped, 23.31 38 (July) 1943
Wolf I J J Med Soc New Jersey 38 436 (Sept) 1941
Wolf I J J Ped, 22 707 718 (June) 1943

Hospital News

Army and Red Cross Ask Civilian Nurses to Give Their Day Off to Army

A SYSTEM under which graduate nurses classified as essential in civilian position or otherwise ineligible for military service will be asked to do volunteer duty at Army hospitals and ports of debarkation on their days off has been worked out by Army and Red Cross officials.

The volunteer nurses will be used chiefly for emergency duty, and will supplement paid civilian nurses now employed full-time in Army hospitals, Lt. Arthur M. Currier said at the headquarters of the chief surgeon of the 2nd Service Command, on Governors Island.

Lieutenant Currier, who is in charge of the command's new nurse procurement center at 39 Whitehall Street, has revealed that the Army has been employing civilian nurses to work at hospitals near their homes on a civil service status since November. These nurses, like the volunteers, must be ineligible for military service, either because they are more than 45 years old, have children under 14, or for other reasons.

While the qualifications of the paid civilian nurses are passed upon directly by the Army hospital to which the nurse applies for work, or by the chief nurse of the service command in which she lives, the volunteer nurse will be recruited only by the Red Cross, at 2 East 37th Street, Lieutenant Currier said.

Halloran General Hospital on Staten Island is employing as many civilian nurses as it can get and will welcome volunteer nurses to work for one or two days after the arrival of a convoy, Lt. Col. Jeanette Bletch, chief nurse, said.

There are 155 members of the Army Nurse Corps assigned to Halloran, Colonel Bletch said. In addition, the hospital employs fifteen civilian registered nurses not qualified for military service, and ten paid nurse's aides. Ten more civilian nurses are expected shortly, and in addition, the hospital expects about ten cadet nurse graduates. The hospital capacity is 6,000 patients.

Commenting on the Army's use of civilian nurses, Rear Adm. Edward U. Reed, chief medical officer of the 3rd Naval District, said recently that while some civilian nurses were being used in hospitals for Navy dependents it was not planned to expand this use. Underlining the urgent need for nurses in the armed services, the National Nursing Council for War Service revealed that during the month of December 1,000 sick and wounded servicemen reached this country daily, and predicted "the January rate may be higher."

Mental Hygiene Committee Helps State Hospitals Prevent Decline in Care and Treatment of Mentally Ill

THE National Committee for Mental Hygiene made public on January 21 a statement about what state hospitals for the care and treatment of the mentally ill can do to prevent "unnecessary decline" in the quality of their service in spite of wartime shortages of medical, nursing, and attendant personnel, of occupational therapy equipment, and of surgical and other facilities.

The Committee made inquiries of the superintendents of twelve state hospitals in various sections of the country as to what steps they were taking to meet the emergency. The report summarized the replies and suggestions for the benefit of other state institutions in the nation, which have an aggregate patient population of 600,000. The inquiry elicited the following, among other constructive suggestions to meet the current situation:

Select the best available personnel without political preference or favoritism.

Move for better salaries and working conditions to make the positions more desirable. This seems to have been generally done to a considerable degree. Emergency pay adjustment has been authorized in many places. Overtime has been paid when an employee has consented to lengthen the daily hours of work, or to forego vacation time, or days off duty. One hospital insists on at least two days a month off even if the employee would work longer. Retirement plans have been found helpful particularly with individuals who already have a substantial period of service to their credit.

Affiliate student nurses, Cadet Nurses, and courses for nurse postgraduate education have provided interested and capable workers. Wives of servicemen, some with nurse training, have been available in some localities. Conscientious objectors, where it has been possible to obtain them, are mentioned as of particular service. Employees have been recruited in less industrialized sections where state hospital wages appear more attractive. One hospital reports a great many people employed on part time.

Some hospitals have restricted medical service previously given to employees, as it conserves physicians' time and reduces the nursing load, but can hardly make the service more attractive.

Several hospitals say that attendants must be carefully placed at their work and suitably indoctrinated.

Employees engaged in direct care of patients should receive ample public recognition of the essential character of their services. Several have employed recovered patients for hospital service and others have permitted improved patients to sign their own parole, and have employed them at regular wages. They speak of it with reservations, but have found it more satisfactory than had been expected.

Suggestions were made to conserve physicians' time. These included definite office hours for physicians to see visitors, which leaves them otherwise free for ward duties; reduction of the number of visiting days; plans to have supervisors, nurses, and attendants alert to seek out and report to the physicians any appearance of illness; physicians and other staff members have increased their hours of duty by longer days and omissions of holidays

[Continued on page 426]



Patient of thin type of build—skeleton indrawn

ANATOMICAL SUPPORT for faulty BODY MECHANICS

In conditions of faulty body mechanics, the nonuse of the abdominal muscles allows the pelvis to rotate downward and forward, bringing the sacrum up and back. There results an increased forward lumbar curve with the articular facets of the lumbar spine crowded together in the back. The dorsal spine curves backward with compression of the dorsal intervertebral discs and the cervical spine curves forward with the articular facets in this region closer together. Therefore, chronic strain of the muscles, ligaments and joints of the spine and pelvis occurs.

Camp Anatomical Supports have an adjustment by means of which their lower sections can be evenly and accurately brought about the major portion of the bony pelvis. When the pelvis is thus steadied, the patient can contract the abdominal muscles with ease and then with slight movement straighten the upper back.

Relieving back strain and fatigue, due to faulty body mechanics is a feature of the Camp Support illustrated, and other types for Prenatal, Postnatal, Postoperative, Pendulous Abdomen, Visceroptosis, Nephroptosis, Hernia and Orthopedic conditions.

CAMP

ANATOMICAL SUPPORTS

S. H. CAMP & COMPANY
Jackson, Michigan

World's Largest Manufacturers of Scientific Supports
Offices in CHICAGO • NEW YORK
WINDSOR, ONTARIO • LONDON, ENGLAND

[Continued from page 424]

and vacations; reduced elective surgery; reduced clerical duties of physicians. One hospital has utilized part-time physicians from the community.

"Some hospitals have curtailed maintenance of buildings and machinery," the report said. Others point out the danger inherent in carrying such restrictions too far, speak for a good maintenance force, and commend the work of engineers and others for initiative and resourcefulness in the emergency.

Menus have received careful consideration of dietitians and food administrators, to simplify them, to provide and retain vitamins, and to find acceptable substitutes for rationed or scarce foods. Several hospitals have pushed production of food stuffs on their farms, and have done more canning and preserving.

Some institutions say that now is an appropriate time for reduction of a multiplicity of bureaucratic rules which tend to spring up and perpetuate themselves, and to eliminate what does not contribute directly to the welfare of the patients. When new duties and responsibilities are placed where they have not rested before, they should be accompanied by ample explanation, assistance, and supervision until the new duties are learned. It was advised that diagnostic and treatment services be maintained with prompt study and treatment of acute cases. Treatment begins in very disturbed or depressed cases on the day of admission, reducing the nursing difficulties formerly experienced and shortening the period of hospitalization.

One hospital reports that one of the most important factors in enabling them to carry on is the high morale and good and helpful spirit of patriotism which has been shown by the great mass of the employees and patients, realizing that during these times we must all buckle down cheerfully to make the best of conditions not previously existing.

Hospitals Begin Action on Health Needs of Nation

PRESENT hospital facilities were related to established and future health needs of the country by state hospital association officials in a two-day conference held by the American Hospital Association at Chicago's Drake Hotel, February 9–10. The Association's 3,500 member institutions—the majority of the voluntary hospitals of the country—took part in a program based upon a re-evaluation of the purposes of the hospital system.

The Association seriously considered pending federal assistance through grants-in-aid to hospitals for the vast program of growth necessitated by the expressed need for equitable hospitalization. A reference list of American architects who have had experience in hospital or institutional design and are qualified to assist in the widespread construction was presented by the Association's Council on Hospital Planning and Plant Operation.

Fast-expanding health needs of the nation are currently being analyzed by eighteen leaders of labor, industry, education, science, agriculture, and religion, organized as the Commission on Hospital Care at the request of hospital members of the Association. Formulating plans for satisfying the increased demand for adequate hospital care of every segment of the population, the Commission, represented by Dr. Arthur C. Bachmeyer, director of study for the group and director of the University of Chicago Clinics, and Dr. Thomas S. Gates, chairman, president of the University of Pennsylvania, presented its preliminary findings and indicated courses of action to state groups ready to begin their regional analyses.

Surgeon General Thomas Parran of the United States Public Health Service was the speaker at a dinner given by the Association's Board of Trustees. Cooperating with the health service's recently launched $9,000,000 campaign for the eradication of tuberculosis, delegates will forward the American Hospital Association's own program of tuberculosis control and discovery in hospitals through programs of routine examination of patients and employees.

"The national emergency has made the hospital a more vital factor than ever before in the life of the American people," said Dr. Donald C. Smelzer, president of the A.H.A. "The public has awakened to the importance of the facilities offered by the hospitals in their communities and from now on it will demand more and better hospital care. Never before has there been such an opportunity for a service organization to increase its value to the public. The hospital must be more than just a place to house and treat the sick and injured. Hospitals are assuming a broader share of community responsibility."

Hospital Survey Opens Fight on Tuberculosis

CAUSING over half as many deaths since Pearl Harbor as the war itself, tuberculosis has become one of the world's greatest mortality factors.

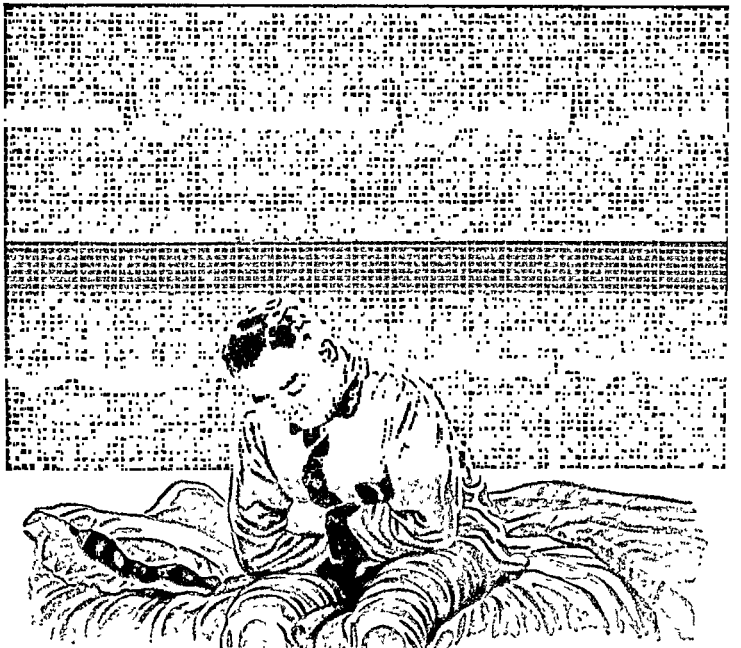
That the hospitals of America may facilitate the eradication of human tuberculosis, 6,500 of them began participation in January in a survey inaugurated by the American Hospital Association to determine the number of institutions now examining their patients and personnel as a part of the regular admission routine.

"Of every 100,000 people in the United States in 1943, forty-four died of tuberculosis," stated Dr. Hugo V. Hullerman, secretary of the Association's Council on Professional Practice, which is making the survey. "Thousands of men and women never realized they had the disease until it had reached its incurable stages.

"Programs of routine examination have been found to discover 70 to 75 per cent of the cases in their minimal or primary stages. Without these precautions, as many as 90 per cent might go undiscovered. Hospitals in 1943 admitted over 27 million patients, and since one person in ten makes use of his hospital at some time during a year, a nationwide program of hospital examination would reach most of the country's population in a few years, including many who would not be included in employee surveys."

Results of the American Hospital Association survey will be used as a guide to hospitals and to state hospital associations in their future efforts, and as a measure of future programs for the continued improvement of the health care of the people in stamping out the disease which is striking yearly such a large percentage of the population.

[Continued on page 428]



Auricular Fibrillation

Rapid efficient digitalization requires a dependable, quick-acting digitalis preparation. These all-important characteristics are embodied in Digoxin, a pure crystalline glycoside obtained from the leaf of *Digitalis lanata*. It has the advantage of being a definite chemical substance, constant in composition and uniform in potency, and may be standardized by chemical methods and prescribed in terms of the weight of the pure drug.

Clinically, Rose, Batterman and De Graff[1] conclude: "Digoxin satisfies the established criteria for a reliable, potent digitalis preparation. The ventricular rate in patients with auricular fibrillation was controlled, and diuresis occurred in the majority of the rapidly digitalized patients within twenty-four hours."

1. Clinical Studies on Digoxin, A Purified Digitalis Glycoside; O. A. Rose, B. C. Batterman and A. C. De Graff Am. Heart J. 24:435, 1942

Oral Preparations: 'Tablonl' Digoxin, 0.25 mgm. (gr. 1/260 approx.)
Bottles of 25, 100 and 500
[illegible] 0.5 mgm. (gr. 1/130 approx.) in 1 cc.
[illegible] goxin Injection, 0.5 mgm. (gr. 1/130

DIGOXIN

BURROUGHS WELLCOME & CO. (U.S.A.) INC. 9-11 East 41st Street, New York 17, N.Y.

[Continued from page 426]

Improvements

Re-establishment of the Catholic Charities Health Clinic for Children in Sisters Hospital, Buffalo, was announced on January 6 by the Rev. Eugene A. Loftus, director of Catholic Charities. The clinic had been functioning two months in temporary quarters in the hospital and now Sister Genevieve, superintendent, said it has been permanently established in the south wing of the building. Newly built doorways and partitions have unified the new section; there is a nursery-waiting room furnished with children's tables and chairs, dressing rooms, a weighing room, and a general examination room.*

• • •

Repairs are being pushed at the Smith Hospital, Oneonta, which was damaged by fire recently.

It was expected that patients would be received at the hospital by January 15, possibly sooner. The interior of the hospital structure was badly damaged by fire, smoke, and water.*

• • •

A campaign to purchase an iron lung for the Glens Falls Hospital was opened January 15 by the Glens Falls Council, 417, United Commercial Travelers, it was announced following a meeting of the council last night in the Queensbury. The council expected to complete the drive by January 25.

The obvious need for such life-saving equipment as the iron lung in a community as large as Glens Falls prompted the council to undertake the project. The campaign had the enthusiastic endorsement of hospital and medical authorities.*

• • •

Fourteen public-spirited North Tonawandans went to the new DeGraff Memorial Maternity Hospital on January 3 in spite of wind, snow, and cold, and waded into the dirt remaining on the second floor with mops and scrub-brooms. When the first 1945 Samaritan Squad had finished its tour of duty two hours later, it was reported that the second floor was completely cleaned and required only an application of wax before twenty-four expectant mothers' beds could be made up and patients accommodated.*

At the Helm

Annual reports of committees and election of officers featured the yearly meeting of the medical staff of the Olean General Hospital held at the Institution on December 19. Officers elected for the coming year are Dr. D. L. Wormer, president; Dr. L. J. Atkins, vice-president, and Dr. James F. Durkin, secretary and treasurer.

A résumé of the year's work was presented by Dr. A. L. Runals, retiring president.

The staff meeting was the first to be held under the new arrangement recently adopted, by which the time of meetings was changed from the third Friday night of each month to the third Tuesday afternoon of each month from noon until one P.M.*

• • •

Dr. George E. Taylor was elected chief of staff of Bethesda Hospital, Hornell, at a meeting on December 18. He succeeds Dr. Merle A. Place.

Other officers elected are Dr. Roger Haggerty, of Arkport, vice-president; Dr. Howard S. Brasted, secretary.*

• • •

Appointment of Mrs. Irene E. Oliver, of South Weymouth, Massachusetts, as superintendent of Tompkins County Memorial Hospital, Ithaca, was announced on December 20 by Joseph S. Barr, chairman of the board of trustees.

A registered nurse and a graduate of a Massachusetts hospital nurses' training school, Mrs. Oliver for the last eighteen years has been administrator of Weymouth Hospital, Weymouth, Massachusetts. She is a member of the American College of Hospital Administrators, and a trustee of the Massachusetts Hospital Association.

During her administration, the capacity of Weymouth Hospital was increased from 20 to 170 beds, which is a larger bed capacity than Memorial Hospital. During her tenure at Weymouth, Mrs. Oliver has guided two building expansion programs.*

• • •

Six North Queens physicians were appointed to the courtesy staff at Flushing Hospital on December 19 at a meeting of the board of trustees. The appointees include Drs. Arthur Langstadt, Rudolph Ebert, Flushing; Henry Shankman, Kew Gardens; Thomas McCann, Elmhurst; and Edward Giovine, Woodside.

The trustees approved the reinstatement of Dr. Harvey Van Lammer as ophthalmologist and chief of the ophthalmologic clinic.

Dr. Van Lammer had been on leave from his duties at the hospital, while serving in the armed forces.

Mrs. Jean Smalbach, chairman of the nursing committee, reported that Gladys L. Nichols assumed the post of director of nurses and principal of the nursing school in December, 1944.

Official Referee John M. Cragen, acting chairman of the board in the absence of L. Gale Hunter, presided at the session.

The trustees paid tribute to a fellow member, Frederick W. Woppler, who has been making a detailed survey of the hospital and its equipment, and has suggested repairs and renovations.*

• • •

Dr. A. J. Roach, for the past twelve years superintendent of the Broome County Tuberculosis Hospital, took over the duties of superintendent of the Montgomery Sanatorium December 1. Dr. Roach is well qualified to serve in this administrative capacity, having had a wide experience in New York, Massachusetts, and Wisconsin.*

• • •

*Asterisk indicates that item is from a local newspaper.

[Continued on page 430]



may I suggest you
buy more
U. S War Bonds today?

J.W. Harper

it's always a pleasure

I.W. HARPER

since 1872

the gold medal whiskey

Distilled in peace time and Bottled in Bond under the supervision of the U S Government

Kentucky Straight Bourbon Whiskey Bottled in Bond, 100 Proof, Bernheim Distilling Co., Inc Louisville Kentucky

[Continued from page 428]

Col. G. G. Duncan, MC, formerly Chief of Medical Service at Thomas M. England General Hospital, Atlantic City, New Jersey, has been assigned as Consultant in Medicine, Headquarters, Second Service Command, Governor's Island, New York. He replaces Lt. Col. Herrman Blumgart, MC, assigned overseas.

• • •

Dr. A. T. Goldstein was elected president of the staff of St. Luke's Hospital, Utica, at its annual meeting held January 4 in the hospital.

Other officers elected for the ensuing year were: vice-president, Dr. C. S. Dickson; secretary-treasurer, Dr. A. Vernon Johnston, and executive committeemen, Dr. John Gromann, Dr. Herbert W. Thomssen, and Dr. William H. Williams.

Dr. Fred G. Jones presided. Hospital records and case histories were reviewed.*

• • •

The Rev. Clarence L. Braun, for thirty years superintendent of St. John's Lutheran Orphanage, Buffalo, has been appointed superintendent of DeGraff Memorial Hospital in North Tonawanda.

Harry C. Jagow was named trustee of the DeGraff Memorial Hospital at a special meeting of the State Trust Company directors on January 4 to fill the vacancy on the hospital board left by the resignation of Chairman Dow Vroman.*

• • •

Dr. Cecil E. Pitard has assumed his new duties as resident physician in the Kingston Hospital. Dr. Pitard has just completed his internship at Birmingham, Alabama. He assumed his duties at the local hospital on January 5.*

• • •

Dr. Luther A. Thomas, of Corning, was elected president of the Board of Directors of Corning Hospital on January 4. George D. Macbeth was elected first vice-president, Mrs. Alan W. Hawley, second vice-president, and Walter W. Oakley was re-elected secretary and treasurer.

The resignation of Mason B. Coger as a director was accepted, but no successor was elected.

The new board president deferred appointment of committees until a later meeting.*

• • •

The annual meeting of the medical staff of Veterans Memorial Hospital was held on January 2. The officers elected for the ensuing year were: Dr. J. Weiss, president; Dr. O. Roberts, vice-president; Dr. A. Ruggiero, secretary, and Dr. A. Augustine, treasurer.*

• • •

Appointment of Dr. Casper G. Burn, associate professor of pathology at the Long Island College of Medicine since 1938, as director of the laboratory at Kings County Hospital, and the receipt of a $5,000 gift to increase the laboratory facilities of the L. I. College of Medicine at the hospital, have been announced by Dr. Jean A. Curran, president of the college.

For ten years the Long Island College of Medicine has had a division at the Kings County Hospital staffed by its faculty members. Dr. Burn's appointment provides a further strengthening of the affiliation with the hospital. Under the new program the college is taking over four rooms for research and is installing laboratory and library facilities.

This expansion of the program at Kings County Hospital is concurrent with expansion of laboratory facilities at Hoagland Laboratory and Polhemus Memorial Clinic in the departments of medicine, anatomy, chemistry, and also the installation of a new radio-biological laboratory, for which an expenditure of $55,000 is being made. These projects are just a beginning in a long term development program outlined by the Board of Trustees. In the near future, Dr. Curran said, the college will need new buildings and further expansion of its teaching and research programs.*

• • •

Dr. Philip Freinberg, Hudson dentist, has been elected a member of the Board of Trustees of the Hudson City Hospital.*

• • •

The Lutheran Hospital Association of Brooklyn held its annual election in the latter part of December and chose the following officers: president, John G. Nelson; vice-president, William Muller; financial secretary, Otto C. Etterwendt; treasurer, August J. Mayer; chairman of the Board, Albert H. Legenhausen.

The following trustees were elected for a period of three years: Albert H. Legenhausen, John Krauss, William Messner, and Cord Steneck.

Eve Garnsey, R.N., is at present Acting Superintendent of the hospital.*

• • •

Dr. J. Spottiswood Taylor, who resigned as director of the laboratories of the Poughkeepsie Board of Health on December 31, is continuing as director of the laboratories at Vassar Hospital.*

• • •

At the annual meeting of the Greene County Memorial Hospital staff, Dr. T. Earl McQuade, of Coxsackie, was elected president, Dr. Ray Persons, of Cairo, vice-president, and Dr. George L. Branch, of Catskill, secretary.

Dr. Edwin Mulbury, of Windham, Dr. Alton B. Daley, of Athens, Dr. Kenneth F. Bott, of Greenville, and Dr. Mahlon H. Atkinson, of Catskill, are the other members of the board.*

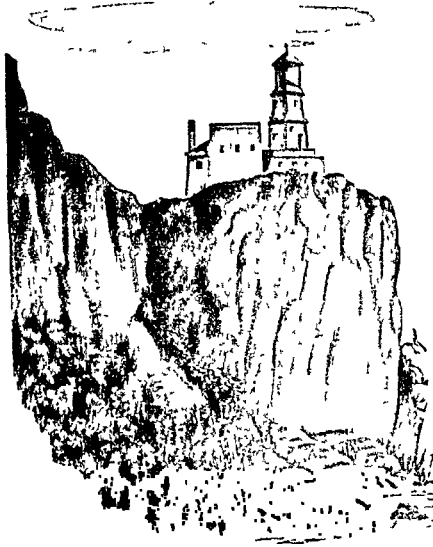
Newsy Notes

The Hospital for Joint Diseases, New York City, is conducting a special study on the treatment of acute and chronic osteomyelitis patients with penicillin. Physicians are requested to refer such patients to the hospital by calling Lehigh 4-5500 and asking for the Admitting Office.

• • •

A medical staff meeting of the Alice Hyde Hospital, Malone, and members of the hospital executive board was held December 19 at the Elks Club. Capt. Chester Rutkowski, recently returned from

[Continued on page 432]



"THE HOUSE BUILT UPON A ROCK"

THE PARABLE of the house built upon a rock and the house built upon the sand has stressed for all time the universal importance of a solid foundation. In the human body, among the important building-stones of that solid foundation are calcium, phosphorus and vitamin D.

Today many of the foods which contain these elements are restricted by war-time shortages. Even in normal times the dietary idiosyncrasies and phobias of many patients may prevent their obtaining adequate intake of these essential factors from food.

Squibb Dicalcium Phosphate Compound with Viosterol is a convenient, economical and palatable form in which to prescribe these necessary nutritive elements. It is available both in capsules and in candy-like wintergreen-flavored wafers.

One wafer supplies your patient with 2 6 gr. (168 mg) of calcium, 1.6 gr. (103 mg.) of phosphorus and not less than 660 U.S.P. units of vitamin D. The vitamin D content—equivalent to that in more than two teaspoons of U.S.P. cod liver oil — is adequate to assure utilization of the minerals. Two capsules are equal in calcium, phosphorus and vitamin D content to one wafer. The capsules are usually preferred by women during pregnancy.

Recommended dosage: 3 to 6 wafers daily, or double that number of capsules.

E. R. SQUIBB & SONS

Manufacturing Chemists to the Medical Profession since 1858

In your prescriptions specify . . .

SQUIBB *Dicalcium Phosphate Compound with Viosterol*

[Continued from page 430]

duty with the Army Medical Corps in France, was a guest at a dinner on this occasion.

Dr. F. F. Finney presided at the business meeting which followed the dinner.*

• • •

Acting to relieve a serious shortage of night ambulance drivers at the Troy and Leonard Hospitals, officers of the Troy Post, 27th Division Veterans Association, on December 19 announced plans by which members of their organization would be made available for ambulance service at the institutions.

A complete schedule and list of volunteers to relieve the shortage of drivers at the two city hospitals was drawn up at the January meeting of the post, Clyde W. Heer, commander, announced.

The Troy Post, which has answered calls for volunteer help at the Rensselaer County Troy City War Price and Rationing Board, will make available for the driving of the ambulances a number of its members living in the vicinity of the hospitals.*

• • •

Purchase of a large instrument table for use in Corning Hospital operating room was voted at the executive meeting of the Woman's Community Club, Corning, which preceded the program on January 4.*

• • •

The annual meeting of the Benedict Memorial Hospital Association was held at the Hospital in Ballston Spa on January 8 at 8 P.M. Reports were given. Three directors were elected to replace Mr. Rooney, Mrs. Andrews, and Mrs. Dorman, whose terms of office had expired.*

• • •

Utica hospitals are holding open house for young women of the region who are contemplating nursing careers. The series started January 11 at St. Luke's Hospital; at Utica Memorial the program took place on January 12; on February 12 at Faxton; at St. Elizabeth, February 22; and at Utica State on April 4. The afternoons consist of a tour of the hospital, an address by the principal of the school of nursing, and a tea.*

• • •

Following the success of Sydenham Hospital as an interracial voluntary hospital, three other institutions in New York City have added colored physicians to their staffs, the first annual statement of the trustees of the hospital to the organization committee said on January 3.

The first meeting of the reorganized board of trustees of the hospital was held on December 20, 1943, at which time it voted to establish an interracial voluntary hospital.

• • •

The first volunteer corps of trained nurses arrived at Halloran Hospital on Staten Island on January 20 to put in a full eight-hour day helping to care for the war-wounded at the request of the Army. They were assigned to general duty on the wards, giving much-needed assistance to a staff which is overworked because of the shortage in the Army Nurse Corps.

Under arrangements made at a meeting of the New York Chapter of the Red Cross, the nurses will wear their own hospital uniforms and the cap of their nursing school; or, in the case of public-health nurses, they will wear the uniform of their organization, to distinguish them from members of the Army Nurse Corps.

• • •

Dale's Sanitarium, in Saugerties, operated and supervised by Mrs. Ruth Dale, R.N., has been given a hospital rating by the State Department of Health.

• • •

The formation of a New York Advisory Board for the National Jewish Hospital at Denver, the first tuberculosis institution in America to provide free medical and surgical care to needy men, women, and children on a national, nonsectarian basis, has been announced by Brig. Gen. Julius Ochs Adler, who is vice-chairman and in charge in this area of the hospital's activities.

The advisory board here will be headed by John Block, president of Kirby, Block & Co., and serving with him will be prominent business executives who will direct the New York program.

"Approximately one-third of the hospital's patients, who receive medical and surgical care for all types of tuberculosis, come from New York City and vicinity," General Adler said. "Wartime strain on men and women in the armed services, as well as on workers in war industries and the civilian population in general, will be reflected, undoubtedly, in an increased number of tuberculosis victims."

Members of the board in addition to Mr. Block and General Adler, are Sanford S. Agate, Seymour R. Askin, Carl Byoir, Herman Chopak, Emil Friedlander, Leonard Ginsberg, Morris W. Haft, Samuel Hausman, Lothair Kohnstamm, Benjamin Lazrus, L. M. Rabinowitz, A. J. Schuel, and Maj. Paul Felix M. Warburg.

• • •

In letters mailed the week of January 1, Carll Tucker, president, and Theodore C. Slosson, treasurer of the Northern Westchester Hospital, are making the annual appeal for financial support for that institution, which serves all sections of Northern Westchester and points south.*

• • •

Legislation which would transfer jurisdiction of Fort Hamilton from the War Department to the Veterans Administration was proposed in January by Representative Donald L. O'Toole, Democrat, of New York.

Terming the measure a first step in an effort to bring a veterans hospital to Brooklyn, site of the fort, Mr. O'Toole declared that the reservation is "obsolete" as a military post in peacetime. "Fort Hamilton," he said, "will serve the country and community far better as a veterans hospital than it will as a military post."*

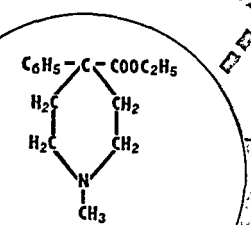
• • •

An inclusive-rate program, under which hospital patients pay a uniform daily price and receive the use of hospital facilities normally billed as extras, was put into effect last July at New York Hospital,

[Continued on page 434]

ANALGESIC
SPASMOLYTIC
SEDATIVE

For Oral and Intramuscular Administration



ethyl 1-methyl-4-phenyl-piperidine-4-carboxylate hydrochloride

Demerol hydrochloride

THE analgesic effect appears to be between that of morphine and codeine, and it persists for from three to six hours.

Demerol has many indications in medicine, surgery and obstetrics.

Before prescribing, physicians should read carefully the booklet on Demerol hydrochloride (sent free on request). Prescriptions are subject to the regulations of the Federal Bureau of Narcotics.

Supplied for oral use, tablets of 50 mg.; for injection, ampuls of 2 cc. (100 mg.).

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(Isonipecaine)

Winthrop Chemical Company, Inc.

Pharmaceuticals of merit for the physician • NEW YORK 13, N. Y. • WINDSOR, ONT.

[Continued from page 432]

525 East 68th Street, and on January 20 was pronounced a success.

Dr. John B. Pastore, assistant superintendent of New York Hospital, said that a recent survey had disclosed beneficial results of the program, for both the hospital and the patient.

The program was devised thirteen years ago by the University Hospitals in Cleveland, and the Evanston Hospital in Illinois. Although the Jewish Hospital of Brooklyn inaugurated the program several years ago, New York Hospital is the first in Manhattan to adopt the plan for all patients. Three other city hospitals are offering the inclusive rate for ward or semiprivate patients, and others are expected to follow.*

. . .

The annual meeting of Rockaway Beach Hospital and Dispensary was held on January 25, it has been announced by William H. Reynolds, president of the hospital's board of directors. At the meeting reports were given concerning the condition of the hospital and its progress for the past year.

This year special interest was taken by many people in the report of the progress of the building fund campaign which the hospital started last year in the hope of being in a position to commence work on a new plant as a postwar project.

Directors were elected at the meeting to fill vacancies caused by the expiration of the terms of several members of the board. The board of directors met following the annual meeting to select the governing body's officers for 1945.

. . .

The enthusiasm of one hundred men who attended a dinner in the Veterans Memorial Building, Albion, on December 15, and the expressions of whole-hearted cooperation voiced by many of them in connection with the campaign to provide a new hospital in Albion give promise that the minimum of $125,000 sought will be forthcoming from the people in central and eastern Orleans County, who will benefit from the new and much-needed institution. Decision of the meeting was that the case will be carried to these same people of the entire county east of Medina.

Edward Archbald accepted the general chairmanship of the campaign and Leon C. Grinnell and Mervil LaRowe agreed to act as cochairman of the Special Gifts committee.

. . .

Doctors on the courtesy staff of Ellis Hospital, Schenectady, have been advised of their appointment by the board of managers for 1945 and of several changes in rules and regulations which have been recommended by the hospital's attending staff.

The changes which it is necessary to enforce have been planned for the good of the hospital's service to the community, according to Chester H. Lang, president of the board of managers.

In the future because of the shortage of trained personnel, all patients entering the hospital for an operation must be admitted between 3 P.M. and 5 P.M., the day prior to the operation. Only in emergency cases will an exception be granted to this ruling.

The hospital also is asking doctors to notify head nurses on the day before the discharge of a patient from the hospital whenever possible. Patients will be discharged before noon of the following day in order to prepare beds for incoming patients.

In connection with this ruling it was noted that the hospital now is handling more medical cases than ever before in its history.

The medical staff also has ruled that no patient with epidemic type of meningitis, primary syphilis, or acute gonorrhea will be admitted during the present emergency; all doctors must comply with the ruling that patients must have a tentative admission diagnosis before entering the hospital, and no patient shall be sent to the hospital without arrangements being made with the admission office, emergency cases excepted.*

. . .

The late Mrs. Eleanor G. Lansing, former president of the Little Falls Hospital Association, has bequeathed to the Hospital $10,000 outright, to be placed in a fund known as the "Eleanor G. Lansing Fund," and one half of the residuary estate.*

. . .

Faced with a demand far exceeding its present facilities, New Rochelle Hospital through its board of governors announced on December 20 a $750,000 emergency building campaign.

The funds would pay for the immediate construction of a seven-story addition to the Central Unit of the hospital and for the building of a new South Wing to replace the present outmoded and inadequate structure.

The campaign got under way in December with Samuel F. McDonald, of Mamaroneck, as chairman. He is head of the hospital board's ways and means committee.

The seven-story addition is to be erected directly over the one-story administration offices inside the main entrance facing Burling Lane. Hospital officials expect to be able to start construction of this addition in March and conclude it within nine months.

The probable cost of this addition will be $250,000. Application for release of the necessary materials is being made at once, hospital authorities said, and no difficulty is expected in obtaining priorities because of the urgency of the situation.

The second part of the $750,000 building program will replace a wing which was erected in 1908 and is now obsolete. The board of governors revealed that it had found that the building could not be reconstructed to accommodate modern requirements.

Construction of this new south wing will be undertaken as soon as plans can be drawn and steel and other building materials are available. The probable cost is $500,000.*

. . .

A community bed for the use of indigent patients will be established at the Nyack Hospital as a memorial to the late Francis A. Glass when present plans materialize. The movement was initiated by Mesdames Henry Poor, Maxwell Anderson, and Milton Caniff, found willing acceptance, and was immediately sponsored by the patients and friends of the late doctor in the towns of Haverstraw, Stony Point, Clarkstown, and elsewhere, and will be in appreciation of his hard work and sacrifices in behalf of his fellowmen. A list of contributors to the fund will be placed on file at the Nyack Hospital.*

. . .

A wartime volunteer service being performed by

[Continued on page 436]

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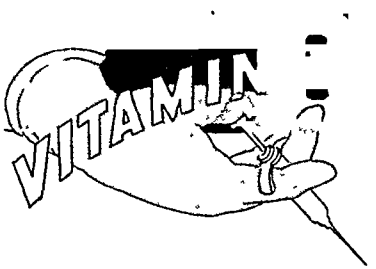
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[Continued from page 434]

business and professional men in the staff-depleted hospitals of Westchester County was spotlighted when the White Plains Hospital announced award of a citation to Harry L. Johnson, of White Plains, for his completion of 1,000 hours of menial work as a volunteer orderly in the institution.

The citation, presented by the hospital's medical staff and volunteer orderly corps, was described by William G. Illiner, hospital administrator, as a "warm-hearted expression of deep gratitude" for the labor of Mr. Johnson in helping to maintain in wartime the standards of a community hospital.

Bankers, clergymen, engineers, lawyers, judges, salesmen, teachers, writers, and business executives —80 per cent of them commuters—are among the volunteers who serve as orderlies at the White Plains Hospital in spare time now that the usual staff of ten paid orderlies has fallen to two.

• • •

Leaving behind the stages of deliberation and planning, supporters of the new Kenmore Mercy Hospital launched the active phase of the project in December by seeking financial support from more than three score industrial plants in the area to be served by the institution, it was announced on December 16.

The campaign, designed to raise at least $250,000 of the $1,250,000 needed to erect the seven-story structure, will be in charge of Albert A. McMullen, president of the State Bank of Kenmore, and Attorney Albert T. O'Neill, vice-president of the Buffalo Niagara Electric Corp.

WE STILL NEED A BOOK

A letter was read to the Executive Committee of the Council at its August meeting asking for information. A junior medical student asked his father why more effort is not being made to place information before groups of medical students. He complained that these students get plenty of propaganda favorable to state medicine, bureaucratic practice, group practice, salaried positions, but none about the ideals and privileges of private practice. The ethics and economies of medical life and practice are learned only incidentally, and haphazardly.

The book we suggested several months ago has attracted the attention of others and efforts are being made to sound the possibilities. We admit the writing of such a book is a labor of no small proportions, but we submit that that work is seriously needed, and will be forthcoming. This query from a junior medical student shows one phase of the need. It also shows a defect in our medical courses that has been apparent for decades. Many times it has been suggested that some well-informed private practitioner of medicine be chosen to give a course of lectures on problems of medical practice, relations to patients, finance, and medical ideals, at our medical schools, elective, if thought best, but one that all the students would be invited to attend. Sporadic attempts have been made but not continued.

This *book* could be so written that it would serve as a text in such a course and would be available for reference to inquiring students in medical and sociologic fields, who are asking for the medical side of socialized or state medicine.

Yes, we need a book—NOW!—*Editorial in the Journal of the Michigan State Medical Society, Oct., 1944*

NAVY ESTABLISHES FILARIASIS REGISTRY

A filariasis registry was recently established by the Bureau of Medicine and Surgery at Marine Barracks, Klamath Falls, Oregon, which is the reconditioning center for Marines returned to the United States from the Pacific because of malaria or filariasis. The registry is to make and keep a record in a central place of all Navy and Marine Corps personnel having a diagnosis of filariasis. Establishment of this centralized record-keeping system will facilitate keeping filariasis patients under surveillance as long as they are on active duty. The information obtained will also make it easier to evaluate the extent of the problem presented by the disease and make possible an adequate follow-up system for effective handling of patients. All naval stations in the United States have been directed to examine health records so that if an entry of filariasis has been made for any individual the data can be forwarded promptly to Klamath Falls.—*J.A.M.A., Dec. 2, 1944*

BRIOSCHI

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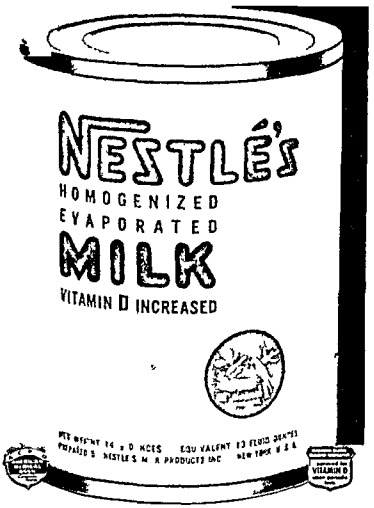


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Woman's Auxiliary

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County News

Orange County. At the regular meeting of the Women's Auxiliary to the Medical Society of the County of Orange, held in Montgomery on December 11, sixteen members were present. Because the county territory is very spread out and because of the gas situation these meetings are held at the same time as those of the Medical Society. After a delicious steak dinner the meeting was called to order and presided over by the president, Mrs. Harry L. Chant. There are sixty-seven paid-up members and seven prospective members.

Plans for an open meeting to be held in April were discussed, after which Mrs. Albert Green gave several delightful readings.

Schenectady County. The auxiliary to the Schenectady County Medical Society held a tea on December 28, 1944, at the home of Mrs. Beverly Vosburgh, of Schenectady. The members of the executive board were hostesses and past presidents of the group poured.

Attending were Mrs. Arthur H. Congdon, Mrs. Alfred Grussner, Mrs. Nelson H. Rust, Mrs. Herman W. Galster, Mrs. R. J. McManus, Mrs. F. Leslie Sullivan, Mrs. D. H. R. Lester, Mrs. Albert Greene, Mrs. Thomas Adinolfi, Mrs. James Blake, Mrs. Arnoldo Samorini, Mrs. Roland Faulkner, Mrs. Gomer Richards, Mrs. George von Borstel, Mrs. Joseph Cornell, Mrs. R. L. MacDowell, Mrs. Milton F. Gilstein, Mrs. Arthur Q. Penta, Mrs. T. Watson Smith, Mrs. William J. Burns, Mrs. John H. Kalteux, Mrs. Victor Henlein, Mrs. L. K. Milton, Mrs. William Jameson, Mrs. Charles F. Rourke, Mrs. D. Glen Smith, Mrs. C. W. Woodall, Mrs. William Mallia, Mrs. David Vrooman, Mrs. Herbert Monheimer, Mrs. James Smith, and Mrs. Clarence W. Jones, of Stamford, Conn.

PREGNANCY AND TUBERCULOSIS

Treatment of the pregnant woman with tuberculosis by the most modern methods of combating the disease together with equally modern prenatal care apparently offers her as good a chance for recovery from her tuberculosis as though pregnancy did not exist.—*Tr. Nat. Tuberc. A., 1941*

PENICILLIN IN RHEUMATIC FEVER

Penicillin appears to have no value in the treatment of acute rheumatic fever

This has been reported by two separate groups of investigators in separate reports in the *Journal of the American Medical Association* for September 30.



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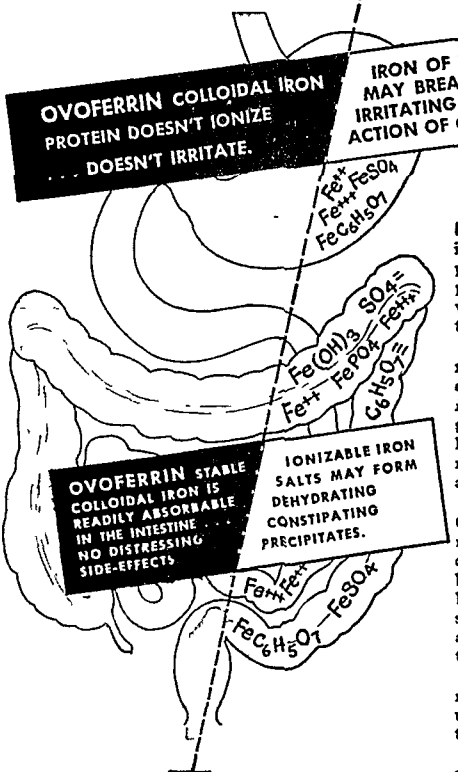
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Books

Books for review should be sent to the Book Review Department at 1313 Bedford Avenue, Brooklyn, N. Y. Acknowledgment of receipt will be made in these columns and deemed sufficient notification. Selection for review will be based on merit and interest to our readers.

RECEIVED

Physiology in Health and Disease. By Carl J. Wiggers, M.D. Fourth edition, revised. Octavo of 1,174 pages, illustrated. Philadelphia, Lea & Febiger, 1944. Cloth, $10.

A Method of Anatomy. Descriptive and Deductive. By J. C. Boileau Grant, M.B. Third edition. Quarto of 822 pages, illustrated. Baltimore, Williams & Wilkins Co., 1944. Cloth, $6.00.

Clinical Practice in Infectious Diseases. For Students, Practitioners and Medical Officers. By E. H. R. Harries, M.D., and M. Mitman, M.D. Second edition. Octavo of 570 pages, illustrated. Edinburgh, Livingstone, 1944 (Baltimore, Williams & Wilkins Co.). Cloth, $6.00.

Theory of Occupational Therapy. By Norah A. Haworth and E. Mary MacDonald. Second edition. Octavo of 148 pages, illustrated. London, Bailliere, Tindall & Cox, 1944 (Baltimore, Williams & Wilkins Co.). Cloth, $2.50.

Modern Clinical Syphilology. Diagnosis, Treatment, Case Study. By John H. Stokes, M.D., Herman Beerman, M.D., and Norman R. Ingraham, Jr., M.D., with the collaboration of eight members of the faculty of the University of Pennsylvania. Third edition. Octavo of 1,332 pages, illustrated. Philadelphia, W. B. Saunders Co., 1944. Cloth, $10.

Arthritis and Allied Conditions. By Bernard I. Comroe, M.D. Third edition, revised. Octavo of 1,359 pages, illustrated. Philadelphia, Lea & Febiger, 1944. Cloth, $12.

The Art of Resuscitation. By Paluel J. Flagg, M. D. Octavo of 453 pages, illustrated. New York, Reinhold Publishing Corporation, 1944. Cloth, $5.00.

Symptoms of Visceral Disease. A Study of the Vegetative Nervous System in Its Relationship to Clinical Medicine. By Francis Marion Pottenger, M.D. Sixth edition. Octavo of 442 pages, illustrated. St. Louis, C. V. Mosby Co., 1944. Cloth, $5.00.

Intracranial Arterial Aneurysms. By Walter E. Dandy. Octavo of 147 pages, illustrated. Ithaca, Cornell University Press, 1944. Cloth, $2.50.

The Medical Clinics of North America. Philadelphia Number. November, 1944. Index 1942–1944. Octavo. Philadelphia, W. B. Saunders Co., 1944. Published Bimonthly (six numbers a year). Cloth, $16 net; paper, $12 net.

The Woman Asks the Doctor. By Emil Novak, M.D. Second edition. Octavo of 130 pages, illustrated. Baltimore, Williams & Wilkins Co., 1944. Cloth, $1.50.

Atlas of the Blood in Children. By Kenneth D. Blackfan, M.D., and Louis K. Diamond, M.D. Quarto of 320 pages, illustrated. New York, The Commonwealth Fund, 1944. Cloth, $12.

Soldier to Civilian. Problems of Readjustment. By George K. Pratt, M.D. Octavo of 233 pages. New York, McGraw-Hill Book Co., 1944. Cloth, $2.50.

Control of Pain in Childbirth. Anesthesia. Analgesia. Amnesia. By Clifford B. Lull, M.D., and Robert A. Hingson, M.D. Octavo of 350 pages, illustrated. Philadelphia, J. B. Lippincott Co., 1944. Cloth, $7.50.

The Embryology of Behavior. The Beginnings of the Human Mind. By Arnold Gesell, M.D., in collaboration with Catherine S. Amatruda, M.D. Octavo of 289 pages, illustrated. New York, Harper & Brothers, 1945. Cloth, $5.00.

Practical Neurological Diagnosis. With Special Reference to the Problems of Neurosurgery. By R. Glen Spurling, M.D. Third edition. Octavo of 237 pages, illustrated. Springfield, Ill., Charles C Thomas, 1944. Cloth, $4.00.

Lead Poisoning. By Abraham Cantarow, M.D., and Lt. Cmdr. Max Trumper, H-V(S), USNR. Octavo of 264 pages, illustrated. Baltimore, Williams & Wilkins Co., 1944. Cloth, $3.00.

Massage and Remedial Exercises. In Medical and Surgical Conditions. By Noël M. Tidy. Sixth edition. Octavo of 480 pages, illustrated. Baltimore, Williams & Wilkins Co., 1944. Cloth, $6.00.

REVIEWED

The Compleat Pediatrician. By Wilburt C. Davison, M.D. Fourth edition. Octavo of 256 pages. Durham, N.C., Duke University Press, 1943. Cloth, $3.75.

This fourth edition is almost a "must" in the libraries of pediatricians and those handling infants and children medically. It is difficult to understand how so much valuable material has been assembled in such orderly fashion in 256 pages. So well is it integrated that to point out the merits of any one chapter would be the height of folly. One would have to know the meticulous spirit of the author to understand the exactness of its pages. Other words than these would be superfluous.

THURMAN B. GIVAN

Virus Diseases in Man, Animal and Plant. By Gustav Seiffert. Translated by Marion Lee Taylor. Octavo of 332 pages, illustrated. New York, Philosophical Library, Inc., 1944. Cloth, $5.00.

This volume, according to the author, is "A survey and reports covering the major research work done during the last decade." The book is divided into three parts. It consists of a general discussion of the virus problem, a special part treating with the various diseases of plant, animal, and man, and chapters on methods of virus investigation.

Although recently edited, the book is actually not up to date. The important work done since 1938

[Continued on page 442]



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[Continued from page 440]

is completely omitted. In addition, the translation is unbelievably poor and the scientific terms are misused. However, there are parts of the book that are well treated, though not very exhaustively. The best that one may state for this volume in its present form is that it may help complete a library of virus surveys. M. LEDERER

Fundamentals of Psychiatry. By Edward A. Strecker, M.D. Second edition. Duodecimo of 219 pages, illustrated. Philadelphia, J. B. Lippincott Co., 1943. Cloth, $3.00.

Present events have emphasized the importance of psychiatric knowledge to medical officers, industrial physicians, and to doctors in private practice in order to enable them properly to perform their duties and understand their patients. World War I has cost this country one billion dollars for the care of psychiatric casualties. This war is longer, bigger, and threatens us with an expense in this regard that staggers the imagination. This book, an outgrowth of the teaching experience of one of the leading specialists in his field, comes at an opportune time. Although concise, it covers the more common conditions, affords an insight into mental mechanisms and psychopathology, discusses more recent advances such as the "drastic" therapies, and has useful chapters on the "war neurosis" and psychiatric nursing. It is one of the best brief books on the subject that has appeared and is to be highly recommended to those who require an introduction and a workable picture of the medicine of the mind.

MATTHEW BRODY

Surgical Disorders of the Chest. Diagnosis and Treatment. By Maj. J. K. Donaldson, M.D., (MC), AUS. Octavo of 364 pages, illustrated. Philadelphia, Lea & Febiger, 1944. Cloth, $6.50.

This book was written expressly for the physician and surgeon who occasionally encounter a thoracic surgical problem. Since this book was chiefly designed for such readers, it would have been profitable to indicate the expected results of the surgical procedures recommended in the various diseases. This book contains a wealth of information, presented succinctly, and is highly recommended as a worthy addition to the physician's and general surgeon's library.

LEW A. HOCHBERG

Textbook of Gynecology. By Emil Novak, M.D. Second edition. Octavo of 708 pages, illustrated. Baltimore, Williams & Wilkins Co., 1944. Cloth, $8.00.

The second edition of Novak's *Textbook of Gynecology* approaches the subject matter in a fashion similar to that of his first edition. Diagnosis and treatment of the various gynecologic problems are thoroughly discussed. On the other hand, surgical procedures are merely mentioned and as a result students and general practitioners are not required to delve through a maze of valueless material.

Two new chapters have been added. One is devoted to the embryology of the female generative tract, and the other covers urologic problems confronting the gynecologist. Pathologic and endocrinologic problems in the field of gynecology are fully discussed. The text is profusely illustrated with excellent black-and-white and colored photographs.

This book should prove to be of interest and value to the student, the general practitioner, and the specialist and will be more popular than the preceding edition. M. GLASS

Medical Care of the Discharged Hospital Patient. By Frode Jensen, M.D., H. G. Weiskotten, M.D., and Margaret A. Thomas. Octavo of 94 pages. New York, Commonwealth Fund, 1944. Cloth, $1.00.

The authors certainly struck a familiar note when, after a study of the question, they state "how unsatisfactory was the medical care of ward patients after discharge from the hospital." All hospital men will agree with this; and they often are conscious of the waste of time, money, and effort required for the solution of a medical problem because the follow-up of the patient was either entirely absent or grossly inadequate.

This small volume offers many useful suggestions and methods as to how this inadequacy can best be met. The book is written in a clear and compact style, has an extensive bibliography, and to those interested in the subject it is indispensable.

S. R. BLATTEIS

Clinical Lectures on the Gallbladder and Bile Ducts. By Samuel Weiss, M.D. Octavo of 504 pages, illustrated. Chicago, Year Book Publishers, Inc., 1944. Cloth, $5.50.

This book consists of a series of thirty lectures and is a worth-while contribution to the literature on biliary tract diseases. The early lectures on anatomy, physiology, history-taking, and physical examination are clear and concise. A lecture on radiology by Dr. E. E. Smith is excellent. Duodenal drainage is perhaps overemphasized. The lectures on the diseases of the tract are very instructive and abound in references to the literature. Jaundice is well presented and some valuable charts are presented. The liver-function tests are briefly but clearly described and evaluated. A lecture on preoperative and postoperative care is very important. The book is well printed and has a valuable index. On the whole the book can be recommended both for students and practitioners.

A. F. R. ANDRESEN

Heart Disease. By Paul Dudley White, M.D Third edition. Duodecimo of 1,025 pages, illustrated. New York, Macmillan Co., 1944. Cloth, $9.00.

The third edition of this excellent book is welcome. In arrangement it is similar to the previous editions, but some of the references which were omitted from the last edition have been restored, thus enhancing its value. Some parts have been rewritten, and new material has been added. The whole subject is admirably presented and on debatable issues the author has stated his opinion in a conservative way based on the facts which exist. Throughout the book each phase is considered in the light of the author's large clinical experience, due recognition being given to the contributions of others. The historic references add greatly to the interest and the extensive references direct the reader to the important papers so that if more detail is desired than can be included in a textbook it can be easily obtained. In the reviewer's opinion this is the best book on cardiology at present and should be in the library not only of those who are specially interested in heart disease but also of medical students and physicians whose interests are more general. J. HAMILTON CRAWFORD

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At the meeting of the American Psychiatric Association last spring, it was announced that the objectionable label "psychoneurotic" had been dropped from the records of selectees rejected for nervous and mental conditions and replaced by the phrase "not suited for military service." This is a sensible designation, much more accurately describing the facts, since many individuals unfitted for the intense emotional hazards of modern warfare will prove successful, and often superior, members of a civilian community.

The fundamental fact remains, however, that, according to Col. L. G. Rowntree of Selective Service, between 30 and 40 per cent of rejections and discharges have been related to mental and nervous status and that the total number of persons of this type in the rejected and discharged groups combined will exceed two million.

So far as discharges are concerned, the Veteran's Bureau will no doubt provide institutional care for those in need of such treatment. The great majority of both rejected and discharged groups will, however, need outpatient care alone, or outpatient care subsequent to hospitalization. The urgent question before us today is how and where this outpatient care shall be provided; and there are three major alternatives. Shall mental hygiene clinic provision be made as a special service for discharged soldiers under the direction of Veteran's Bureau hospitals? Shall it be made through community mental hygiene clinics serving all persons in need of this special type of care? Or shall it be developed as an expansion of the outpatient service of general hospitals?

It seems reasonably clear that the first of these three alternatives is least desirable. The development of new outpatient clinics under the Veteran's Bureau would involve serious duplication in a field where concentration of effort is essential. Furthermore, the treatment of the discharged soldier in such clinics would tend to label him as a special type of military psychoneurotic whereas he is essentially the same kind of individual as the rejectee for mental and emotional causes and as the ordinary civilian with similar difficulties. The strain which has accentuated his problem is different; but the task of adjustment to civilian life is the same.

On the question whether we should build increased mental hygiene service on independent mental hygiene clinics or on the outpatient services of general hospitals, Dr. J. M. Cunningham, of the Connecticut State Department of Health, has presented a challenging argument. He points out that in addition to the men who have received various psychiatric labels at the hands of induction boards or service doctors, there is another large group in which emotional and physical defects are closely interrelated in what are now classed as psychosomatic disorders. Dr. Cunningham believes that the "integration of psychiatry and medicine may be expected to be the next great development in the application of psychiatric knowledge." Therefore, all "psychiatric service for adults should be organized as a part of the general hospital and it should be integrated with the other medical services for both in- and outpatients." He suggests that there should be appropriations to subsidize psychiatric diagnosis and treatment in the general hospital for both inpatient and outpatient work; that this service should be on a full-time paid basis utilizing psychiatrists, psychologists, and psychiatric social workers; and that such services should provide for veterans along with all other adult members of the community.—*Ed., Am. J. Pub. Health, Dec., 1944*

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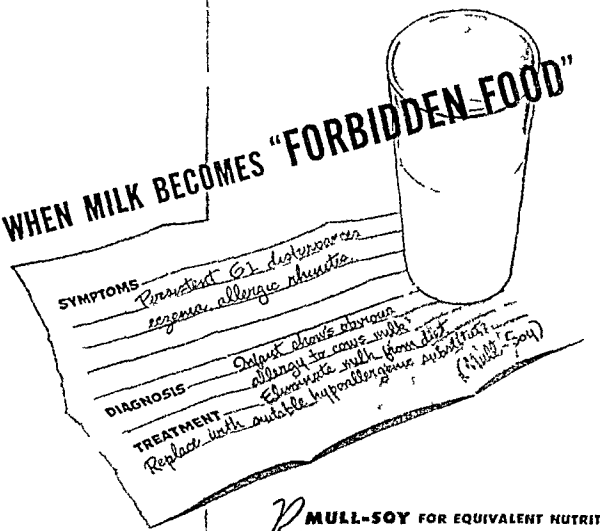
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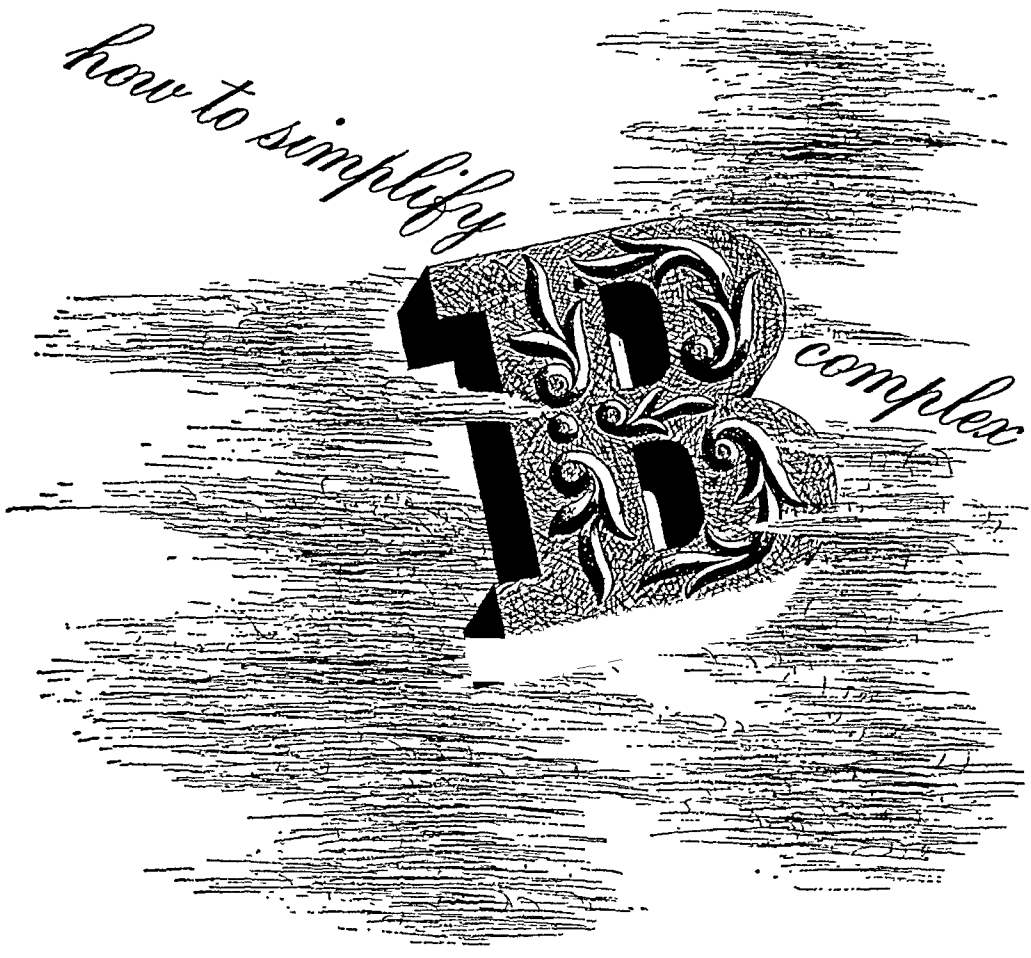
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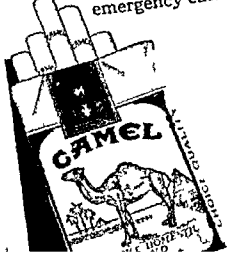
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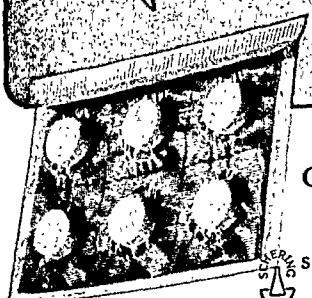
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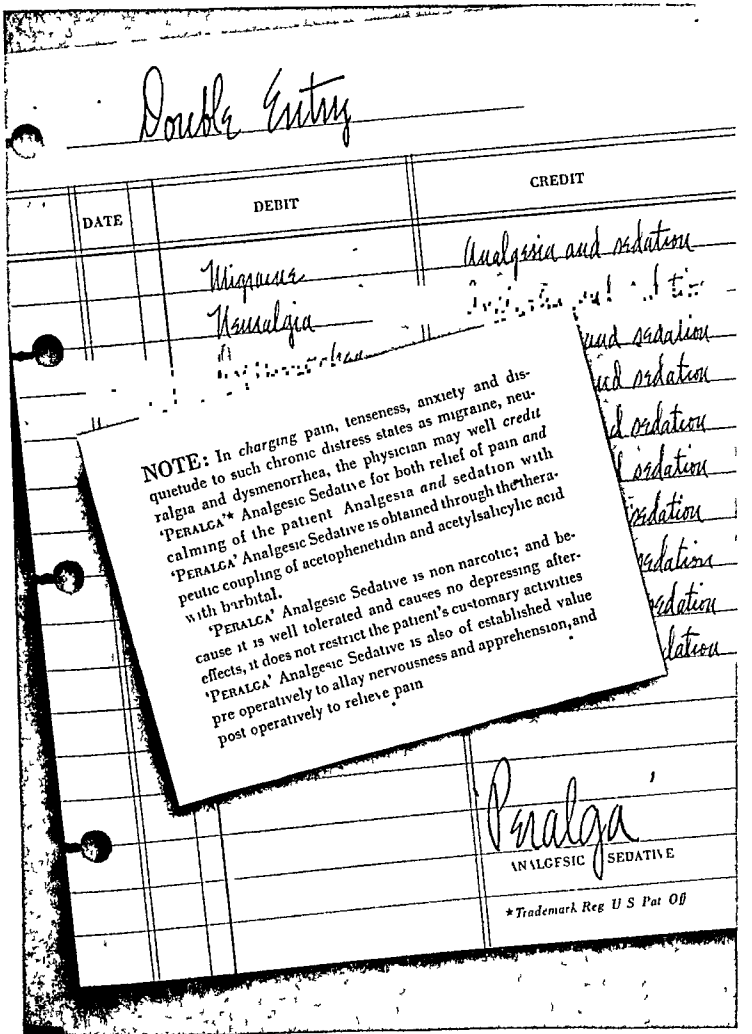
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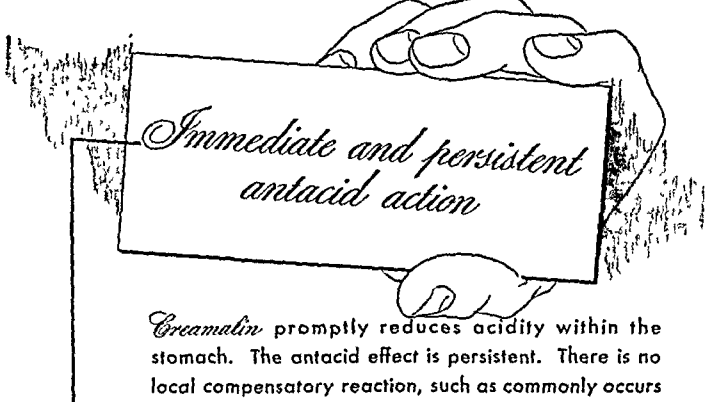
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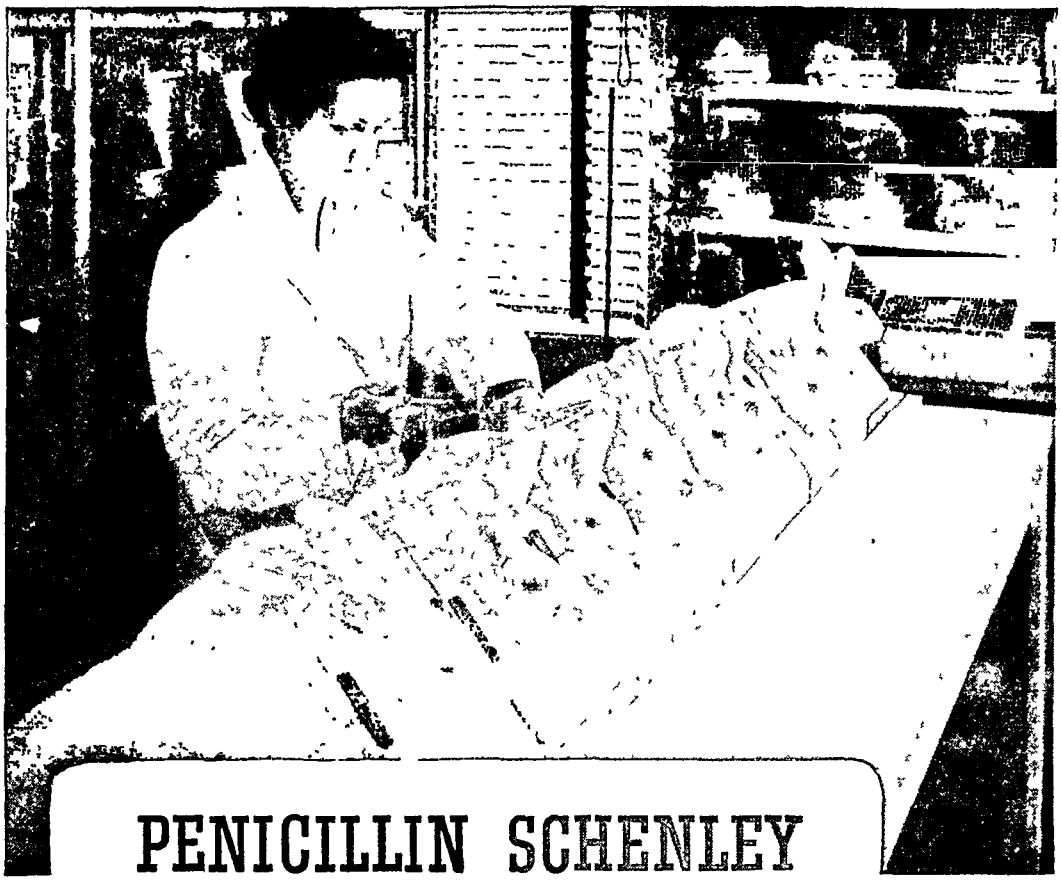


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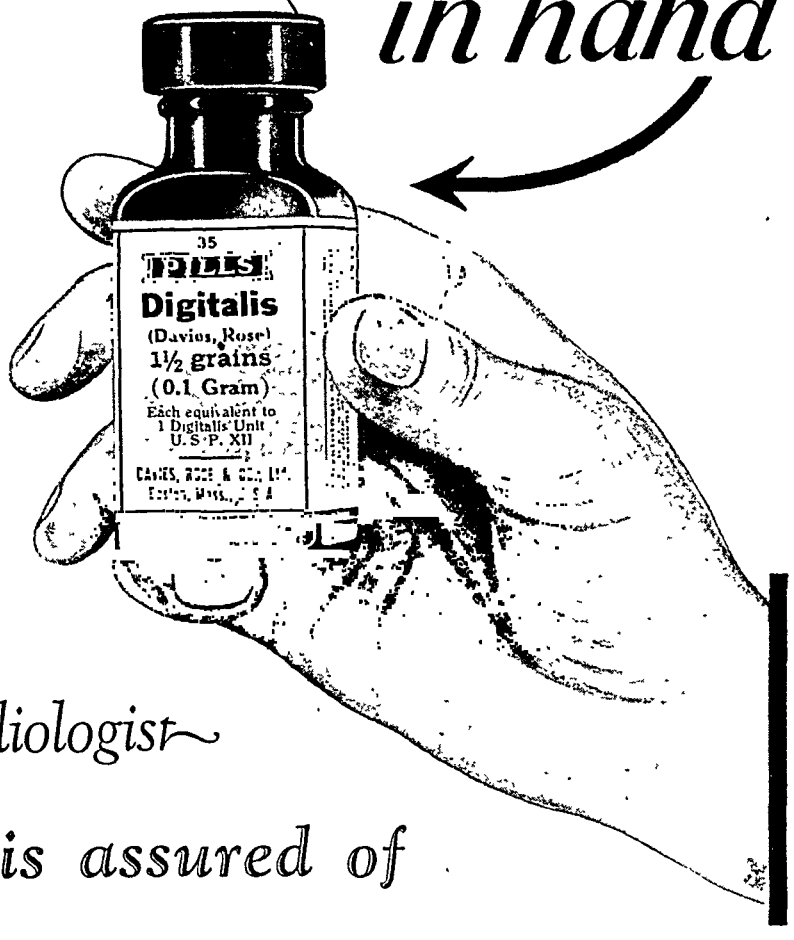


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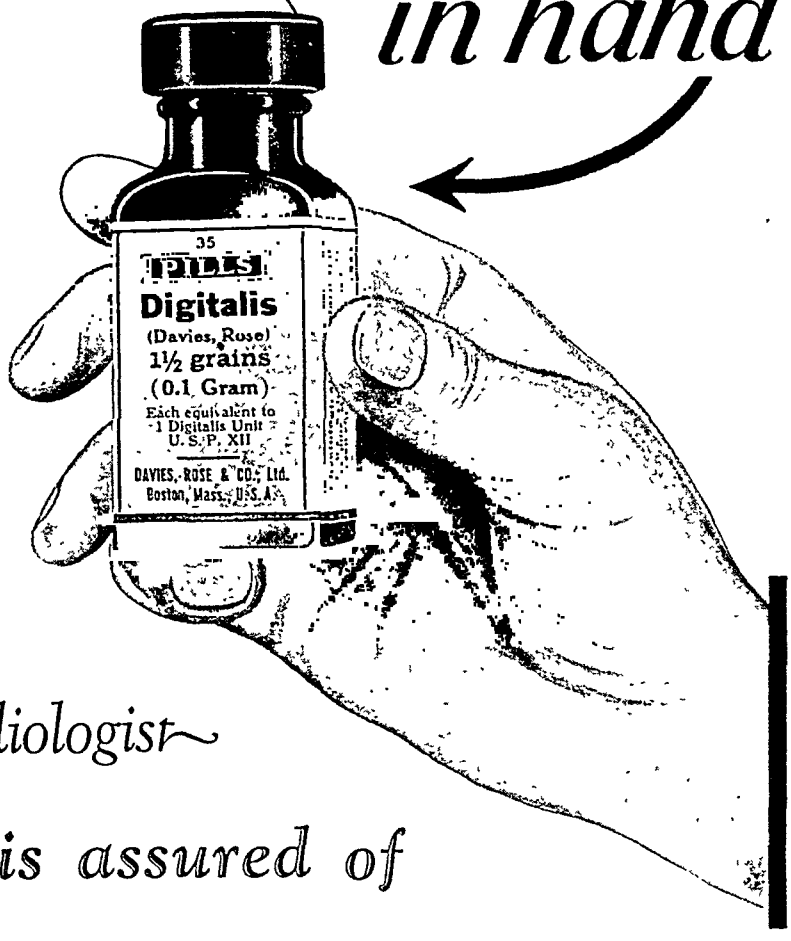
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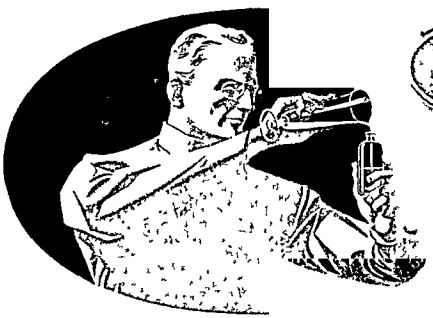
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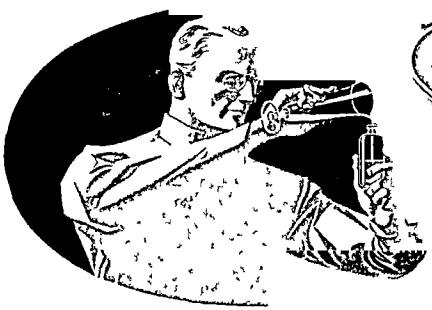
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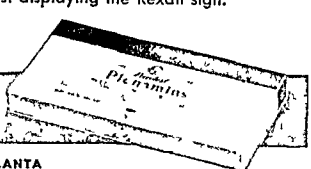
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Vitamin G (B_2)..... 2 milligrams
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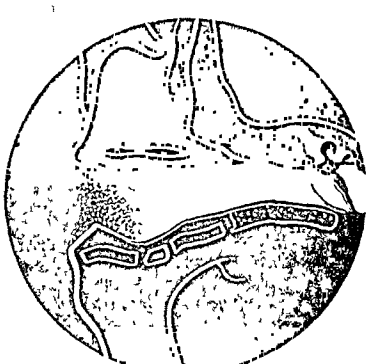
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infections

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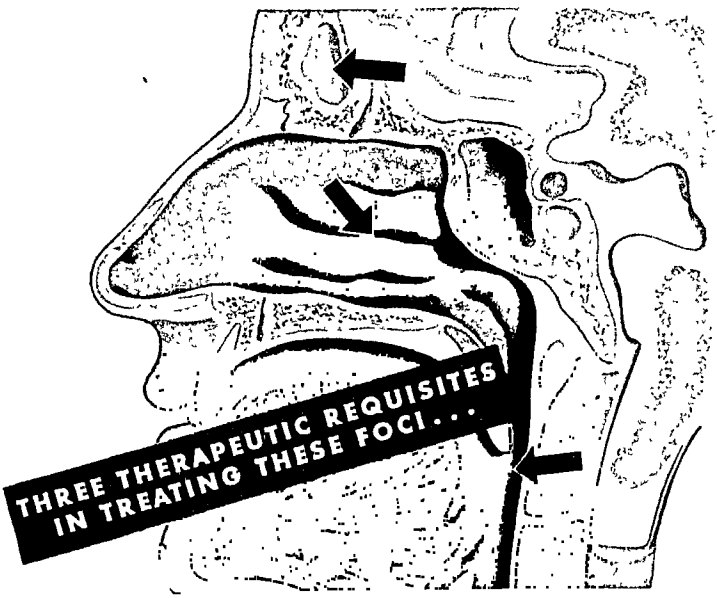
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(1). Spies, Tom D.; Cogswell, Robert C., and Vilter, Carl: J.A.M.A. (Nov.18) 1944. Spies, Tom D.: Med. Clin. N. Am. 27:275, 1943. (2). Jolliffe, Norman, and Smith, James J.: Med. Clin. N. Am. 27:567 (March) 1943.

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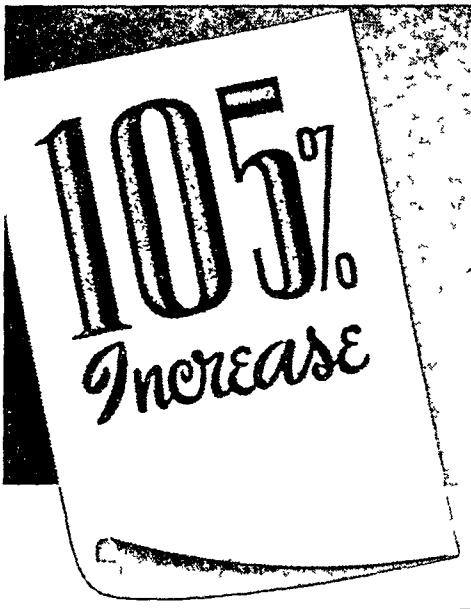
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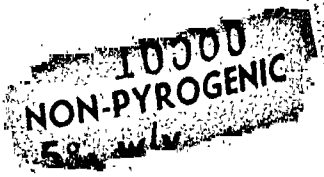
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*Ivy, A. C., et al.: "The Effect of Various Bile Acids on the Volume and Certain Constituents of Bile." Am. J. Digest. Dis., 7.333 (1940).

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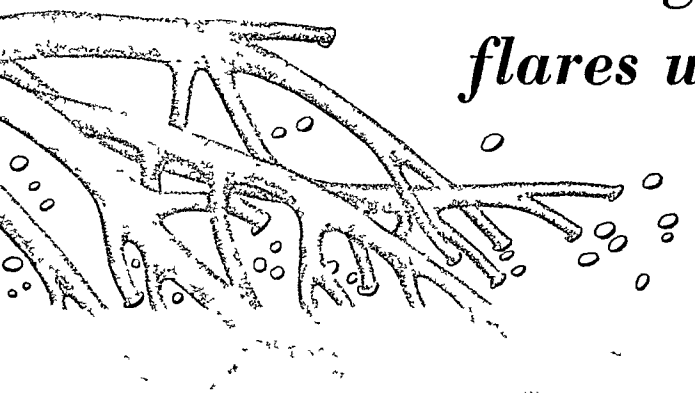
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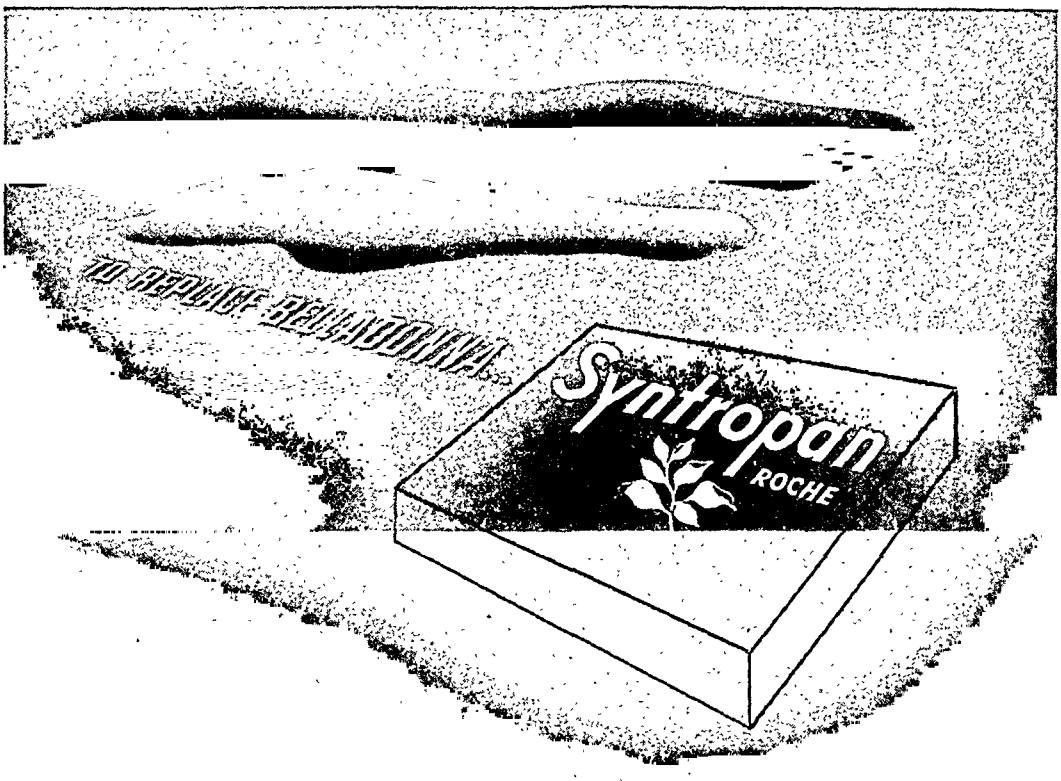
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*Proc. Soc. Exp. Bio. and Med., 1934, 32, 241-245.
**Laryngoscope, 1935, XLV, No. 2, 149-154.

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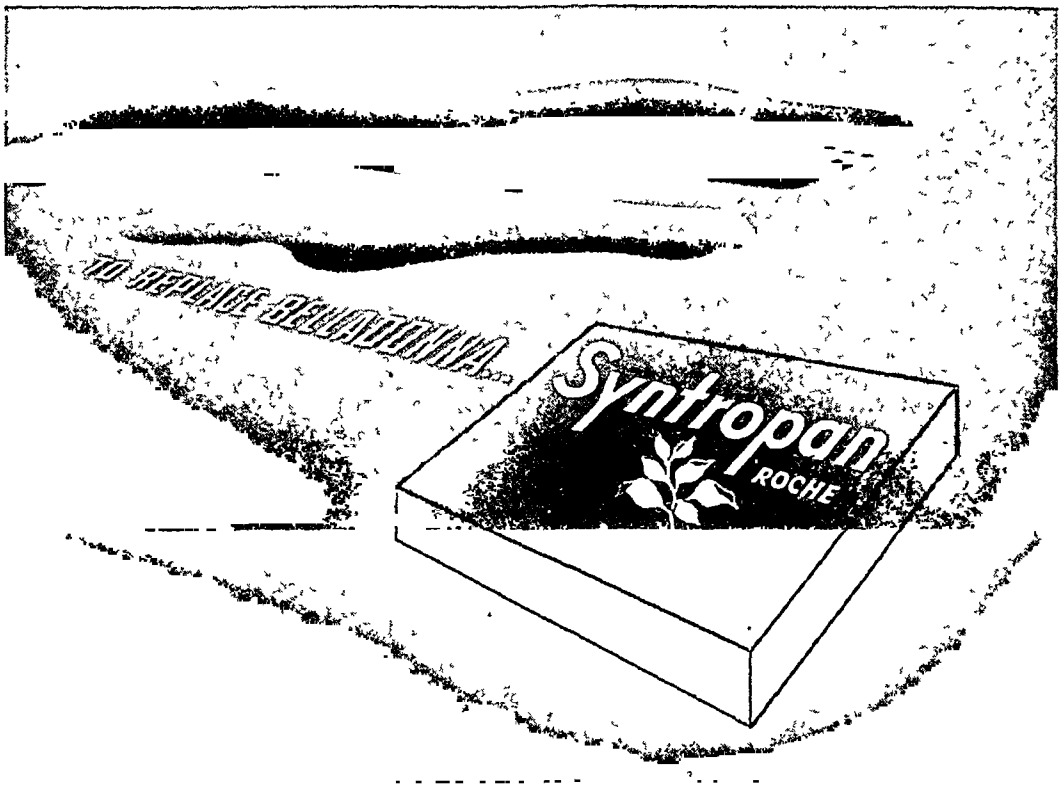
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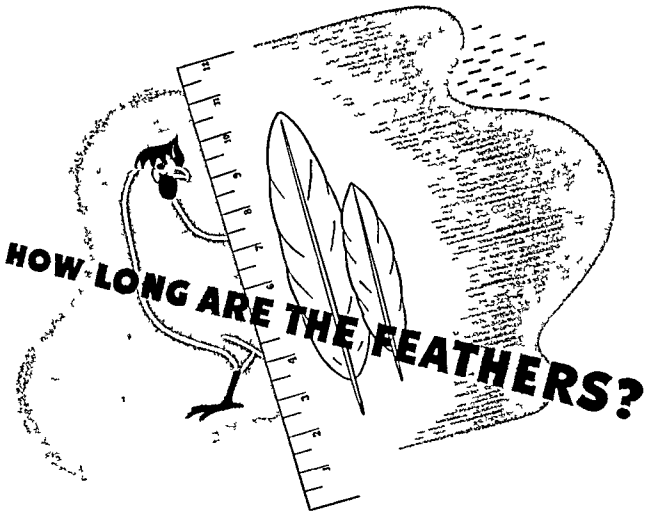
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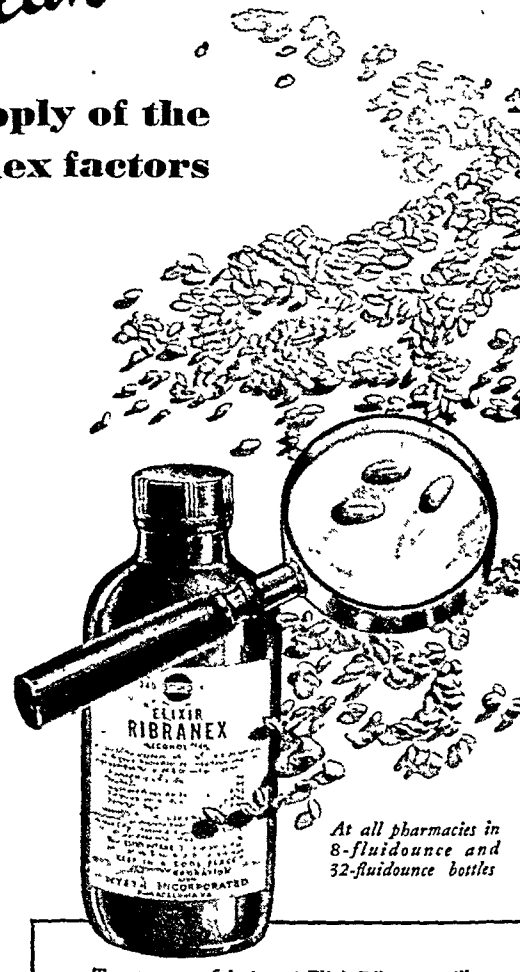
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VOLUME 45 MARCH 1, 1945 NUMBER 5

Editorial

An Adequate Diet, IV: Vitamins

This concludes a series of editorials, begun January 1, 1945, on "The Facts About Nutrition" prepared jointly by the editorial board of this JOURNAL and the School of Nutrition of Cornell University. The authors have consented to answer questions of readers pertaining to the contents of the editorials. Address inquiries to the Editor, NEW YORK STATE JOURNAL OF MEDICINE, 292 Madison Avenue, New York City.—*Editor*

It is in the field of vitamins that the largest recent additions to nutrition knowledge have been made. This continues to be the most active field of nutrition research. One might say that nothing since the first page of medical history was written has caused such widespread interest as the development of the appreciation of the role of vitamins. Because of this fact it is the responsibility of the physician to protect his patients from becoming the victims of needless and expensive vitamin therapy and to point out to them that vitamins are not a panacea for all human ills. The vitamin discoveries thus far made have resulted from experiments with several different species. One should realize that all of the recognized vitamins are not needed in the diet of all species. Generally speaking, all species require vitamins in their metabolism, but some species have the ability to synthesize certain vitamins within the organism. For example, the chick does not require vitamin C in its diet, whereas it is an essential constituent in the diet of man. Clearly, it is of primary importance to furnish these accessory food factors by an adequate diet rather than by the use of pills. In fact, an adequate diet is the only satisfactory means of providing a full vitamin intake.

In respect to man, we have reasonably good quantitative knowledge for planning diets and accessory food supplies in the case of vitamin A, vitamin D, thiamine, riboflavin, nicotinic acid, and ascorbic acid. Inasmuch as there are many gaps in our knowledge which need to be filled, the physician finds himself in a dilemma, for on the one hand he knows of the dramatic results obtained when full-blown deficiency diseases,

such as pellagra and beri-beri, are given intensive vitamin therapy; and on the other hand he hears, as do his patients, from the radio and popular articles that such symptoms as fatigue, constipation, anxiety, loss of appetite, and intellectual dullness are on a vitamin-deficiency basis; and, even though skeptical, he has at times also been victimized by lack of clarification. Carlson[1] puts it this way: "The public has been rendered vitamin conscious by the press, radio and by the less critical laboratory and clinical workers in nutrition. The detail man is eloquent and persuasive. So, lest we overlook a bet, we join the vitamin bandwagon."

Progress in research for determining the daily requirements of vitamins has gone through successive steps of endeavor. First came the successful experimental production of deficiency diseases in laboratory animals and their cure by supplemental feeding; second, the classification of foods as to their vitamin content, at first crude and later refined in method; third, the synthesis of vitamins; and, more recently, the discovery that many vitamins are synthesized within the body. The latter obviously raises the question of standards now used in calculating the daily allowances. Along the road where so many successes have been established in the last twenty years in the discovery of new nutritional factors, many discards are also strewn. This is true not only of vitamin research but of science in general. At any given place along the road we can only post the rules for that stretch of highway. The Food and Nutrition Board of the National Research Council, in the publication *Recommended Dietary Allowances*,[2] has posted the rules for the road thus far built. They provide a liberal factor of safety.

The daily allowance for vitamin A for the adult is considered to be 5,000 U.S.P. units. There is no variation in the requirement with body activity, but the requirement is higher during pregnancy and lactation and slightly lower for children to the age of twelve. The green leafy and yellow vegetables are the outstanding sources of vitamin A. An average serving of cooked greens, for example, will meet the daily requirement. Milk, butter, and eggs are also good sources of this vitamin.

Infants and children need supplemental addition to the diet of vitamin D. Not again until pregnancy and lactation is a supplement of this vitamin of proven value. Daily allowances of 400 to 800 U.S.P. units, the equivalent of one to two teaspoonfuls of U.S.P. cod liver oil, fulfill the required supplement.

There is some evidence that the American diet of today, because of modern processing methods, is low in thiamine. The physician will do well to investigate the thiamine content of his patients' diets. The recommended allowance for thiamine, which is now recognized to be unnecessarily liberal, ranges from 1.8 mg. to 2.3 mg. daily, the latter amount being advisable for those physically active, or during pregnancy and lactation. Pork is an outstanding source of thiamine; a 4-ounce serving of lean meat supplies about 1.7 mg. Whole-grain cereals, enriched flour, and bread are good sources to use every day. Foods such as meat, other cereals, peanuts, and some vegetables provide 0.1 to 0.2 mg. per serving.

The present recommended riboflavin allowances range from 2.2 to 3.3 mg. daily depending upon age, sex, and activity. For children under twelve, an allowance considerably less appears adequate. The requirements are highest with activity, increased body weight, pregnancy, and lactation. It is now recognized that the recommended allowances for riboflavin should be revised downward, on the basis of recent studies. Milk and meats are the most important sources of riboflavin, but they must be taken in considerable amounts to satisfy the daily requirement. Riboflavin is destroyed by light; hence, milk exposed to sunlight for any length of time no doubt loses a considerable amount of this important dietary essential.

The niacin or nicotinic acid allowance has been set at about ten times that of thiamine—18 mg. to 23 mg. for the adult, and somewhat less (4 to 12 mg.) before the age of twelve. Good sources of this vitamin are red meats and whole-grain or enriched cereals.

There are so many outstanding sources of vitamin C (ascorbic acid) that there is little reason for a deficiency of this vitamin where fresh fruits and vegetables are liberally available. In the preparation of vitamin C rich

foods for the table, particular attention must be given to avoid cooking losses. The daily allowance recommended for children up to the age of twelve is 30 to 75 mg.; from age twelve upward, 80 to 100 mg.; and during pregnancy and lactation, 100 to 150 mg.

Further information with respect to foods which supply the vitamins previously discussed can be found in the bulletin by Hewetson and Marsh.[3] With respect to the various other definitely identified vitamins, our knowledge of the role of most of them in the physiology of man and of their need in his diet is very meager. Vitamin K, which is essential for blood clotting, does not appear to be required normally in the human diet because it is synthesized by microorganisms in the intestine. Vitamin K therapy has proved most effective where indicated in certain special situations.

Much has been learned about the physiology of choline and the pathologic manifestations of its absence from the diet, but apparently human diets that are adequate in other respects can be relied upon to meet choline needs without the inclusion of special sources. It is known that choline can be synthesized in the body from other dietary constituents.

That man suffers from pantothenic-acid deficiency remains unproved. Its alleged role in preventing or curing gray hair seems definitely unconfirmed. Neither is there convincing evidence that supplementary vitamin E has any value in the human diet.

It has recently been shown that the intestinal synthesis of thiamine, riboflavin, and other B vitamins occurs in monogastric animals as well as in ruminants. Many have been found to be synthesized by man. This microbiologic activity produces complications in establishing dietary needs on a quantitative basis. Also, it raises the question of the indirect effect of the wide usage of the bacteriostatic sulfonamide drugs on intestinal organisms synthesizing B vitamins. Further studies may develop information of special significance in connection with the treatment of infections. They also may result in the discovery of B vitamins not previously recognized because intestinal synthesis normally meets body needs for them fully, irrespective of diet.

Such findings as these serve to illustrate the probability that there are other undiscovered factors of practical importance in certain physiologic or dietary situations and emphasize the necessity of an adequate diet which will supply the unknown, as well as the known, vitamin requirements. Too many people have their dietary sights focused on pills rather than on food. There is no scientific evidence that a well person on an adequate diet can be made "more well" in terms of immunity or strength, mental or physical, by taking synthetic vitamins. The wise physician will endeavor to correct the impression of modern youth that the products served at a soda bar supplemented by "pills" will meet nutrition needs. Can we criticize the younger generation when their elders, too, condone such practice? It is recognized, of course, that vitamin pills have, when indicated, a valuable therapeutic effect.

Ruffin[4] summarizes the use and abuse of vitamins as follows:

"1. Vitamin therapy is definitely indicated in patients having objective evidence of a deficiency state, but should always supplement dietary treatment, never replace it.

"2. Vitamin therapy is useful in preventing the development of secondary deficiencies in chronic wasting diseases and pre- and postoperative medical care.

"3. In the absence of organic disease, the individual who consumes a diet, adequate in calories, consisting of fruits, milk, eggs, a variety of meats, and green vegetables does not need additional vitamins.

"4. Vague symptoms such as weakness, fatigability, insomnia, nervousness, and irritability are more apt to be due to overwork, nervous tension, or to social, domestic, or financial difficulties than to a vitamin deficiency.

"5. For the most part, prolonged vitamin therapy in the absence of obvious disease is useless."

---

[1] Carlson, A. J.: J. Lancet 43: 371 (1943).

[4] Ruffin, J. M.: Nutrition Rev. 2: 353 (1944).

International Health

In these hectic days international affairs are in the limelight, but the question of war and peace is uppermost in public thinking. When the turmoil of war will have subsided into the calm of normalcy, international health inexorably will be a subject for fruitful discussion by international conventions. War breeds famine and pestilence, and the world has shrunk because of the amazing acceleration of transportation and communication. These are the natural precursors of the transition from a national to an international point of view about health problems. What form a world-wide health organization will assume depends upon the architecture of the world organization wrought by statesmen.

Quarantine regulations are the oldest accepted international health function, for it has long been recognized that certain diseases, such as cholera, plague, and yellow fever, have been carried by ships. During the past decade the rapid expansion of air travel, which promises to geometrically increase in peacetime, raises new and urgent problems. Air routes, to and from yellow-fever areas, from Africa, India, and other countries rife with pestilential diseases, demand a new international sanitary code. Recent studies in this field brilliantly illustrate the necessity of such regulations.[1]

Dangerous anopheline mosquitoes, carriers of malaria, have been transmitted between continents. The normal yellow-fever transmitter, Aedes aegypti, has been transported to Brazil from Africa. Epidemics of malaria and yellow fever soon appeared in regions previously free of these diseases. Precautions to prevent these infected insects from importing the virus of exotic diseases cannot be too stringent. Air travel threatens greater peril from the introduction of the insect than of the infected human being.

The United States must meet a similar problem when our troops return from Africa, India, China, and the far East. The influx of malaria carriers constitutes a definite challenge to the resourcefulness of our medical administrators. The great increase of malaria in our troops in tropical regions is of more than academic interest, as returning servicemen, importing new and virulent strains of malaria and other diseases, may become reservoirs of dissemination. The "invasion" of our country by malaria carriers has already been noted by the U.S. Public Health Service. The infected human being may infect a previously harmless mosquito which will then act as a transmitter of disease.

Influenza is a virus disease which has been in the past internationally disseminated. Different strains of this virus have been isolated and measures for immunization are being investigated.[2,3] A pandemic disease called influenza, frequently following in the wake of war, probably of viral origin, is still awaiting solution by preventive measures or some form of international prophylaxis.

Typhus fever, a scourge in war and in peace, is being conquered largely through international health centers. More effective delousing methods and more potent insecticides promise a speedier victory over this international enemy, through the agency of health centers equipped to carry out such procedures in conjunction with methods of immunization. Dysentery and diarrheal diseases will also respond to uniform and systematic methods of prophylaxis and treatment.

Nutritional diseases which are widespread in certain areas even in peacetimes, such as beri-beri, pellagra, and malnutrition due to protein and fat deficiencies, are also amenable to the methods of organized national and international health agencies.

International health functions will increase in future years. The ultimate goal is the establishment of efficient health centers throughout the world integrated and guided by a superstructure stemming from a world body. Full-time personnel will be trained for the dissemination and execution of the principles of medical prophylaxis and treatment for the extermination of preventable diseases, which rapidly move across boundaries unless controlled.

[1] Sawyer, W. A.: Bull. N.Y. Acad. Med. 20: 394 (July) 1944.

[2] Francis, T.: Graduate Fortnight Proceedings, New York Academy of Medicine, October, 1944.

[3] Commission on Influenza: J.A.M.A. 124: 982 (April) 1944.

Symposium: Changes Which Have Resulted from the Use of Sulfa Drug Therapy

IN X-RAY FINDINGS IN MASTOIDITIS

WILLIAM RICHARD CASHION, M D , Flushing, New York

THE influence of sulfa drug therapy in changing the customary findings in x rays of the mastoids may be arbitrarily divided into three phases the first, in acute mastoiditis in which no bone involvement is present, the second in acute mastoiditis in which bone changes are present, and the third, in chronic involvement of the mastoid

The above classification was devised by me, as there are no other reports of this type in the literature, however, the observations which are to follow were observed first by Dr Law at Manhattan Ear, Nose and Throat Hospital, New York City, and were reported by him at a local otolaryngologic meeting

In the first phase, conventional films of an acutely inflamed mastoid showing severe involvement with no bone changes, the cell walls are seen to be fuzzy through the opaque veiling of the mastoid If sulfa drugs are given to the patient, the cell walls are thin and clear cut instead of fuzzy The entire mastoid is more transparent, similar to the hemorrhagic type The same observations are noted in the second phase however, the bony septa or cell walls which are softened or absorbed remain unchanged, neither progressing or regressing

In the first and second phases healing may take place completely and evidently does, as the incidence of mastoidectomies has dropped considerably in the past few years The discharge stops, temperature drops to normal and pain is relieved However, one must not be misled by these changes, for after sulfa therapy has been discontinued, the time varying from seven to ten days according to the type of drug given, there may be a flare up of the condition with recurrence of the symptoms Patients whose x-rays, taken at this time, show progression of the disease, are operated upon Those showing no changes in the disease, but showing clinical change in the judgment of the clinician, are also operated upon In all cases, the radiologic and clinical evidence is correlated There were several cases seen in which the general practitioner had given two, three, and four series of sulfa therapy

These cases eventually come to surgery This emphasizes that careful clinical observation plus x-ray findings should be followed during the course of the disease in order to determine the final disposition of the case

In the third phase, chronic involvement or repeated attacks of mastoiditis, the cell walls show varying degrees of osteitic thickening, therefore, the above observation does not follow There have been no changes seen in their appearance with or without sulfa therapy

Pathologic studies of mastoid cells following operation show the same changes with or without the drug There are areas of destruction and regeneration in both instances

I wish to thank Drs Law and Eggston for their assistance in presenting this paper

IN THE MANAGEMENT OF OSTEOMYELITIS

JAMES M FLYNN, M D , Rochester, New York

THE discovery of the sulfonamide drugs has been hailed with much acclaim by the medical profession This enthusiasm is soundly based, for it has been shown that they are capable of unbelievable good They do undoubtedly constitute one of the greatest advances in medicine of the present century

Yet it is well to be aware of the dangers involved in the indiscriminate use of these potent compounds There is a tendency on the part of some physicians to apply the drugs promiscuously, whereas it is of vital importance that the exact bacterial nature of every infection be determined, and also the degree of effectiveness of the sulfonamides to be used Those most effective are those few adjudged so from clinical experience, they have shown the least toxic reaction and hence are regarded as clinically useful

Believing that some physicians have gained an erroneous conception of the part to be played by the sulfonamides in the treatment of acute osteomyelitis or acute exacerbation of chronic osteo-

myelitis, I am attempting in this paper to fix their role as one of associated therapy rather than that of sole agent in the treatment of such infections. Bearing upon this purpose, I shall review briefly the findings obtained in a limited number of cases by some outstanding surgeon-investigators in this field of research.

Penberthy[1] concluded, after a study of a series of cases, that sulfanilamide was not effective in staphylococcal infections; that sulfapyridine with blood transfusions gave encouraging results; that sulfathiazole was the preferred drug because it was better tolerated. The method of treatment was as follows: $1^1/_4$ grains (0.08 Gm.) per pound of the body weight were given over a twenty-four hour period at four- to five-hour intervals. Following saucerization in chronic osteomyelitis, cavities were packed with sulfathiazole powder. It was found that chemotherapy considerably reduced the period of hospitalization as well as the incidence of metastatic abscesses.

Dively and Harrington[2] found the following procedure effective in the treatment of osteomyelitis: (*a*) systemic administration of sulfathiazole in sufficient dosage to secure a blood concentration of approximately 5 mg. per 100 cc. several days prior to operation; (*b*) thorough débridement of the infected area; (*c*) implantation of sulfathiazole crystals in the wound; (*d*) primary closure; (*e*) application of plaster dressing for fixation.

McKeown[3] found early and adequate administration of sulfathiazole combined with bone drilling to be effective in limiting the extent of the bone necrosis in the early stages of the disease, thereby preventing the establishment of a series of reactive changes which lead to chronic osteomyelitis. Key,[4] using sulfathiazole in the treatment of osteomyelitis, pointed out that the sulfonamides do nothing but inhibit the growth of bacteria. He stressed drainage of the focus of the bone to prevent increased destruction.

Dickson,[5] in a discussion of Key's report, stated that no matter how high a concentration of the drug is present in the environment of the bacteria, the sulfonamide-inhibitor substances, pus and necrotic tissue, must be reduced to a minimum. He recommended that the introduction of the drugs be preceded by a thorough surgical cleanup, pointing out that the primary factor of success is adequate surgery.

The authorities just called upon are of one mind as to the necessity of surgical intervention in the treatment of acute osteomyelitic infections. There are those who differ from this view. They hold to the belief that acute hematogenous osteomyelitis is a general disease or septicemia, of which the local focus in the bone is only one manifestation, and that the treatment demanded is one of a medical rather than a surgical nature. I cannot help but feel that this medical viewpoint arises from the fact that clinical signs, often disappearing after early administration of the drug, give rise to a false hope.

The view that early administration of adequate doses of the sulfonamides is not in itself sufficient to limit the severity of bone infection finds support in the experience of the roentgenologist. In a series of studies, by means of x-ray, of cases under sulfa-drug treatment, it can be shown that the clinical picture is often not very impressive. A condition far different from that which he was led to expect from the absence of clinical signs will confront the observer. The active progression of the disease, as revealed by the x-ray, will suggest immediate surgical intervention. Since the x-ray will reveal the exact location and extent of the infection, serial roentgenograms would aid greatly in the treatment of cases of suspected osteomyelitis.

The treatment of acute osteomyelitis infections demands adequate surgery in combination with the sulfonamides.

Several series of roentgenograms illustrating different phases of bone infection and following the use of sulfonamides and the change noted before and after surgical interference were shown and discussed by the speaker.

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Discussion

Dr. Frederick S. Wetherell, *Syracuse, New York*— Dr. Flynn and Dr. Cashion, by implication, both reiterate the well-known surgical axiom which is applied to bone infections, *viz.*, that surgical intervention is indicated when bone necrosis occurs. They have made clear, too, that there may be abscess formation and tissue destruction even with absence of some of the clinical manifestations which ensued before the introduction of sulfonamides. They are correct in urging the use of serial roentgenologic studies of the diseased bone during the course of conservative medical treatment. It seems logical that the surgeon should be asked to see and to follow these cases while they are being treated conservatively. Surgeons are now beginning to see patients who have had long-continued medical treatment which included the use of sulfonamides. Bone destruction, including the formation of complicated sinus tracts, is often much more extensive in these cases than it would have been had there been earlier surgical intervention. Serial x-ray studies in such cases would have shown that the osteomyelitic process was not subsiding. Good surgery means that every bit of necrotic and infected bone has been removed, and that the longitudinal edges of the remaining bone are flat enough to allow soft tissue to fall over, and cover, the bone. With a correct technic the end result is good regardless of the type of chemotherapy which is used postoperatively. The preoperative use of such therapy has its value.

FILARIASIS

DONALD L. AUGUSTINE, Sc.D., Boston, Massachusetts

(Associate Professor of Comparative Pathology and Tropical Medicine, Schools of Medicine and Public Health, Harvard University)

FILARIASIS is much too inclusive a subject even for generalizations, and for this reason I have chosen to limit this discussion to just one of the species of the filarioid worms, Wuchereria bancrofti. This species is not only the most frequent, but is also one of the most important of the worm parasites of man in the warm countries. Its reported high incidence in our defense forces serving in or having served in endemic areas brings this parasite into particular prominence at the present time.

In 1863 small larval nematode worms were discovered in hydrocele fluid of a person in Havana, Cuba. Within the next few years identical worms were reported in chylous urine and in the peripheral blood of patients from different and widely separated parts of the tropical world. They were placed under the genus Filaria, a name established in 1787 and used by earlier authors in a very broad taxonomic sense. The adult forms of the parasite were discovered in a lymphatic abscess in 1876 by Brisbane in Australia. They were described under the name Filaria bancrofti. The parasite was generally known by this name until about twenty years ago, when, because of morphologic differences, it was placed under a new genus, Wuchereria, which name had been applied to the parasite in 1877 by Da Silva Araujo in honor of Dr. Wucherer, prominent physician and parasitologist at that time in Brazil. Today the valid scientific name of the parasite is Wuchereria bancrofti, and infection with it is generally referred to as bancroftian filariasis.

Although bancroftian filariasis is widespread throughout the warm countries, it is a focal disease, and is neither evenly distributed nor uniformly prevalent in any country. It characteristically occurs in island populations or along more or less broad, low-lying coastal areas of the larger islands and continents. Indigenous infections are seldom to be found in the foothills or beyond coastal plains. In Asia, the parasite is established along the coastal areas from Arabia to the Shantung Province in Eastern China. It is prevalent throughout the islands of the East China Sea, southern Japan, southern Chosen, and the Oceanic Islands. In Australia its distribution is mainly limited to the Queensland coasts. In Africa the infection is found in a few east and west coastal areas, Lower Egypt, Madagascar, and neighboring islands. Contrary to apparently current belief, it does not extend across tropical Africa; i.e., it does not occur in the Central Congo areas. For this information I am indebted to Dr. Paul Brutsaert, Director of Health Laboratories, Leopoldville, Belgian Congo. Brumpt[1] likewise, in his last edition of *Précis de Parasitologie*, does not include the Congo as an endemic area. In the Americas the infection is very common along the northern coast of South America, particularly the littoral of the Guianas and Venezuela, and to a lesser extent along the northern coast of Colombia, and is generally prevalent throughout the Antilles. This spotted and discontinuous distribution of the parasite within endemic areas is attributed to differences in local physical factors and sanitation, and to the presence or absence of favorable mosquito vectors. It is, however, difficult to understand why the parasite thrives along the northern coast of South America and throughout the Antilles, while there is a scarcity, if not absence, of indigenous infections along the Caribbean shores of Central and North America.

Within endemic areas, bancroftian filariasis is typically urban in distribution. It is restricted to a few towns or to sections of towns which are densely populated or poorly sanitated. It is particularly common in overcrowded dwellings of poor people, and the incidence and morbidity in a given family may be striking.

The adult worms are parasites only of the lymphatic system of man. They, like other nematodes, show marked sexual dimorphism; the male worm measures about 40 mm. in length and 0.1 mm. in diameter, and the female is at least twice as long. They may be found at any level of the lymphatic system, but occur most frequently in the limbs, scrotum, and inguinal regions. The two sexes are often coiled together in the periglandular tissues, the afferent lymphatics, and in the cortical sinuses. In heavy infections they may also occur in the medulla. Probably they do not migrate.

The progeny of the adult worms consists of very immature larval forms which, because of their minute size, were named microfilariae. Their appearance in the peripheral blood is periodic in most parts of the world; they are present at night but absent in the daytime. We

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have no adequate explanation for this phenomenon. These microfilariae, as seen in fixed and stained blood smears, are covered with a hyalin sheath which may extend some distance beyond the anterior and posterior limits of the body of the worm. These sheaths are not apparent on the microfilariae in the circulating blood. They are formed on the slide in the clotting and drying blood. The worm is mechanically held in the medium, and in its efforts to push on and back out, its outer covering is stretched. It usually does not escape, and the covering is retained as a distinct outer membrane. While the nature of the sheath is essentially an academic question, its presence is of practical value in that it forms a specific character in establishing diagnosis.

For further development and further spread of the parasite, the circulating microfilariae must be ingested by suitable mosquitoes, the sole vectors of bancroftian filariasis. The factors which determine the suitability of particular mosquitoes are not known. Development takes place readily in mosquitoes of a variety of genera, including Culex, Aedes, and Anopheles, but nearly related species within these genera differ widely in their ability to serve as hosts. For example, C. quinquefasciatus and C. pipiens are favorable hosts, whereas C. vexans is not; and A. scutellaris pseudoscutellaris is also a very favorable host, but A. aegypti and A. albopictus are not.

Metamorphosis and development of the infective stage for man take place in the thoracic muscles of mosquitoes. Under highly favorable conditions the infective stage is reached after about ten days when it travels through the thoracic muscles into the interior of the labium, where it awaits an opportunity to get back to man, which is presented when the mosquito feeds. Unlike the development of the malaria organisms in the mosquito, there is no multiplication of filaria larvae in the body of its vectors. On the contrary, only a fraction of the number of microfilariae ingested by the mosquito develop to the infective stage for man. It has been estimated that about 35 per cent of the microfilariae ingested by mosquitoes die in the stomach blood clot, and that a very heavy mortality of larvae may also occur after their arrival in the thoracic muscles.[2] These worms are pathogenic in the mosquito. Many infected mosquitoes die during the first few days after an infective blood meal. At every step of transmission, only a few parasites are involved. The transmission of bancroftian filariasis is, therefore, accomplished with much less certainty than that of malaria.

When the mosquito feeds upon a person, the infected larvae escape from the distal portion of the labium of the mosquito, and momentarily become free on the skin. They then actively enter the human host by penetrating the moist skin, entering presumably through the wound made by the mosquito, or through a breach in the skin.

Nothing is known about the larvae after they enter a human host until they appear as adult worms in the lymphatic system. Judging from observations on a related species in the dog, Dirofilaria immitis, development of W. bancrofti to functional sexual maturity probably requires at least several months. For production of microfilariae it is necessary that worms of opposite sex come to lodge and develop together in the same spot. Successful infections, therefore, probably are, in most cases, the result of mass biting by infected mosquitoes.

Giant urticaria, abscess, myositis, lymphangitis, lymphadenitis, elephantiasis, hydrocele, lymph scrotum, and chyluria are the commoner and generally accepted signs in bancroftian filariasis, although the manner in which the parasite produces disease is not clear. It is generally held that living microfilariae are not pathogenic. Our own experiments have shown that these larval forms readily pass unharmed through normal lymph nodes.[3] Direct observations have shown that they are exceedingly active in the blood stream. They are not only passively carried about with the blood stream, but they also actively move against the blood stream in the arterioles, making slow progress by bracing themselves against the walls of the vessel. They frequently occlude the capillaries, and then suddenly break through the stagnated column of blood cells to re-enter the active circulation. They apparently never make permanent plugs or form emboli.[4]

In view of the fact that microfilariae, in great numbers, are constantly being destroyed within the host, the possibility that at least some of the manifestations of bancroftian filariasis are allergic responses cannot be disregarded.

The serious disorders in bancroftian filariasis are usually attributed to the presence of the adult worms. O'Connor,[5,6] as a result of extensive studies on bancroftian filariasis in the South Pacific area and in the West Indies, was firmly convinced that dead adult worms, through aseptic degeneration and absorption, were chiefly responsible for the acute inflammatory processes which develop around them, and also for advanced pathologic changes. Here again an allergic sensitization to the worm's substance is assumed. Very recently Hartz[7] contributed significantly to our knowledge of the histopathology of bancroftian filariasis. According to Hartz, the living adult worm provokes dilatation of the parasitized lymphatic, and its subsequent occlusion and obliteration follow from a

granulomatous mass of epithelioid cells within the duct and a perilymphangitis Thus, in heavy infections we can expect extensive areas to be involved with obstruction of lymph drainage to a part, lymphedema to develop and elephantiasis, due to extensive fibrous overgrowth, to follow This sequence of events has been produced under experimental conditions by Dunker and coworkers [8]

I believe there is little doubt that W bancrofti per se can produce elephantiasis, but the question immediately arises as to the cause of the grossly identical elephantiasis prevalent in the Congo areas where the parasite apparently does not exist

Some authorities, Anderson[9] and Grace,[10] have been definite in the opinion that W bancrofti per se is not pathogenic, and that the pathologic manifestations usually associated with bancroftian filariasis, especially lymphangitis and abscess, are due to pyogenic organisms, particularly the beta hemolytic streptococcus which is of low virulence and characteristic of the tropics

Thus we have two distinct schools of thought One which holds to the view that W bancrofti is pathogenic and the sole cause of all pathologic manifestations associated with bancroftian filariasis, and the second, even more positive, that these same disorders, particularly lymphangitis, are of bacterial origin

Our present conception of clinical bancroftian filariasis is largely based upon observations by workers of the first school In their epidemiologic studies the populations have been divided into at least three classes (1) persons showing neither infection, i e , no microfilariae, nor accepted manifestations of filarial disease, (2) persons positive for microfilariae (usually upon blood examination), (3) persons with accepted signs or symptoms of filarial disease

In the last two divisions there is always considerable overlapping because some of the persons with microfilariae in the blood also show symptoms Most persons with clinical symptoms do not show microfilariae in the peripheral blood because of lymphatic block

There is considerable disagreement of just what should be included under "symptoms" or "signs of filarial disease" Buxton[11] and others hold that myositis and abscess in the Pacific area are not sequelae of bancroftian filariasis, but separate diseases due to a staphylococcus Lymphadenitis, and lymphangitis, particularly permanent enlargement of the epitrochlear gland, are considered, by Buxton and others, to be the earliest and cardinal signs of bancroftian filariasis, but Iyengar,[12] in his study of filariasis in India, excluded the presence of enlarged glands, lymphadenitis, and abscesses because he could not determine to what extent they represented filarial disease or filarial infection, but included elephantiasis, lymph scrotum, hydrocele, chyluria, and lymphangitis Buxton recorded hardness or enlargement of the testicle and epididymis and the presence of hydrocele as genital signs of bancroftian filariasis, but finding it difficult to define the boundary between a normal testicle and epididymis and one that was enlarged or fibroid, he concluded that the male genitalia do not provide useful physical signs of filariasis

Keen interest in the subject of bancroftian filariasis developed in this country upon the report of its alleged high frequency and its serious disabling effect in hundreds of patients in our defense forces who had served in the Samoan and other South Pacific islands While the cases thus far have been under military care, sooner or later many are bound to come to the attention of physicians in civilian practice

Among the chief complaints in these cases are scrotal lesions, funiculitis, epididymo-orchitis, edema of the scrotal skin, and lymphangitis and lymphadenitis The disease has occurred in troops who have had five months' or more service in endemic areas The diagnosis of bancroftian filariasis has been made almost entirely upon clinical signs and symptoms The rather sudden appearance of the disease is contrary to the usual train of events in bancroftian filariasis It is usual for the patient to harbor the parasite for months or years, as shown by microfilariae in the blood, without evidence of disease In the present group the disease suddenly appears, and microfilariae are not found in the blood

It has been my good fortune to study with Dr George C Shattuck a number of these cases returned from the Pacific area The following patient, seen privately, is representative

Case 1 —The patient, H W , a captain in the U S Marines arrived in Samoa in September, 1942 About mid-July, 1943, he became conscious of a slight transient swelling of the left testicle, slight pain horizontally across the left pectoral area and pain in the left forearm No swelling in the pectoral area was observed by him No microfilariae were found in his blood but the condition was believed to be due to filariasis, and he was returned to the United States

On September 21, 1943, he came to us for examination He appeared to be in good health The left testicle was found to be slightly larger than the right but this was not considered abnormal There was perhaps, some thickening of the spermatic cord but there was no evidence of edema or thickening of the scrotum The left pectoral muscle was thicker than the right The patient stated that he had not noticed this until it was discovered by a phy

sician who thought it represented swelling. Dr. Shattuck attributed this to asymmetric development and did not regard it as a pathologic condition. A 5 cc. sample of blood taken and examined at 11:30 P.M. was negative for microfilariae.

The patient stated that he wished to marry, but hesitated to do so because he feared embarrassing genital lesions might develop. After reassurance he felt greatly encouraged, and was told that there seemed to be no reason for not marrying. This he subsequently did, and when seen some weeks after the event he said he felt in perfect health, and that the early condition of the spermatic cord had disappeared.

Considering the wide variance of opinion on characteristic signs of filarial disease, there is no symptom in this case which can be attributed solely to infection with W. bancrofti.

It is not my intention to underestimate W. bancrofti as a human pathogen. There is sufficient evidence that it can be a factor in the production of the many clinical manifestations mentioned. The point I wish to make is that the evidence at hand is insufficient to warrant making a diagnosis of bancroftian filariasis for all cases from the South Pacific in which lymphadenitis, lymphangitis, or suggestive genital signs may have occurred.

The evidence presented by Grace that tropical lymphangitis can be a manifestation of hypersensitiveness to beta hemolytic streptococcus of low virulence should be reviewed and further studied. The onset of the attack of lymphangitis due to beta hemolytic streptococci, as described by Grace, is invariably sudden, and is ushered in with severe, deep-seated pain localized to a small area. This has been a characteristic feature of the histories we obtained in our studies on returned patients among military personnel.

I wish to recall here the early and important work of Dubruel[13] in Tahiti and neighboring islands. In this study, blood withdrawn in the absence of fever in cases of elephantiasis gave no growth on ordinary media, but that withdrawn at the height of an attack of lymphangitis yielded staphylococci in pure culture. It was also observed by Dubruel that fluid withdrawn in the presence of lymphangitis showed streptococci more frequently than that withdrawn between attacks. These observations of Dubruel are in accord with the results of the more recent experimental studies on elephantiasis by Drinker *et al.*[14] in which bacteria (streptococci) could rarely be isolated from edema fluid except at the beginning of an attack of chills and fever. In the light of these observations, the negative findings recently reported for navy and marine personnel with a diagnosis of bancroftian filariasis are not sufficient to rule out bacterial infection.[15,16]

It must be admitted that our knowledge of host-parasite relationships in bancroftian filariasis is largely an assemblage of ideas lacking experimental proof. But experimental proof here is difficult to obtain because man is the only mammalian host of W. bancrofti, and no filarial worm produces similar lesions in lower animals.

The problem is not an easy one. The fallacy of objective symptoms in the diagnosis of parasitic diseases has long been recognized. The answer must come through critical laboratory studies—helminthologic, bacteriologic, and histopathologic. For the present, a diagnosis of lymphangitis or lymphadenitis without specific reference to the filaria would dispel much of the nervous tension and fear which so frequently develop in these cases.

The question has frequently been asked—What is the prognosis for these cases from the Pacific? The answer must be uncertain, but the following case history, provided by Dr. Shattuck, indicates that deformity is not likely to result.

Case 2.—W. H., a 72-year-old man, was born in Dorchester, Massachusetts. He was graduated in 1895 from Harvard University, cum laude. Swelling and soreness of the spermatic cord began in 1923 shortly after his arrival in Tahiti from Sarawak. Epitrochlear adenitis was noted, and lymphangitis in the arms and legs, varying greatly in degree, recurred from time to time.

The spring and the summer of 1925 were spent in Maine, during which time the lymphangitis was rarely troublesome, but there was swelling of the left side of the scrotum on several occasions. Each time, nearly all of the swelling disappeared in about a week. There has since been practically no swelling of the scrotum. Early in 1926 he was examined by Dr. Manson-Bahr in London. No microfilariae were found in any of the specimens of his blood, and he was told by Dr. Manson-Bahr that he would probably have no further scrotal symptoms after returning to Tahiti, but suggested that it would be a matter of interest, but not great urgency, to have one of the affected glands in his arm removed. In 1929, after a recurrence of lymphadenitis in Boston, the right epitrochlear gland was removed. The freshly removed gland was examined by Dr. J. H. Sandground. No trace of filarial infection was found. The patient returned to Tahiti. A letter received by Dr. G. C. Shattuck from the patient, dated January 24, 1944, stated: "The favorable prognosis that Dr. Manson-Bahr gave me has been most satisfactorily fulfilled, for I have continued to live here with actually increasing comfort and now have nothing to show, so far as I am aware, except a double hydrocele and the very slightest swelling just above the right ankle, which I think you could detect only by pinching both ankles simultaneously.

"The Japs are now so far away, and getting farther, that the few men left at Bora Bora get bored and are given weekends here. I've seen many of

them since Bora Bora was occupied nearly two years ago, and I tell them that if they get filariasis there isn't one chance in 100,000 that the disease will ever bother them for more than a few months after their return to the U S A."

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THE FUTURE OF MEDICAL PRACTICE

The manifold problems changes, and conflicts throughout the entire world are affecting every phase of our own individual lives, our political status as citizens and our national status as a nation, our economic status as breadwinners of families our cultural and intellectual status as examples to our children and our particular professional status as physicians

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world wide social and economic revolution which may bring such changes in man's political, social, and economic life that we will have to go back to the Renaissance to find a change of similar magnitude. I do not believe anyone expects each and every change that occurs to advance man's happiness and security Some think the present trend may contribute to man s decay Only history will tell the answer

You all know by now that I am leading up to socialization of medicine and its enormous ramifications I do not believe we can consider this movement as a separate issue but rather as a development of this social economic revolution which particularly affects our lives as physicians You all have heard much discussion by physicians bitterly opposing such changes and by physicians favoring them We have heard or read what statesmen politicians, and labor groups proclaim, what educators economists and social workers debate, and what our own patients and friends say So far there has been much confusion and very little agreement and understanding Maybe there has been too great a desire to argue and not enough desire to understand

'Security" seems to be the word which profoundly affects the popular mind, and which most persons believe expresses
word is subject to
security is not poss
by virtue of a man's mortal existence some phases of our lives and actions are less secure than others and among the least secure is security from illness It is hard to see how edicts and laws alone enacted by well meaning socialistic governments, will alter the fact A streptococcus germ or an arteriosclerotic process will not obey such edicts

But we must face the fact that legislation probably will be enacted in the attempt to secure some form of health and sickness insurance, and some reason for this may be found among our faults and shortcomings both individually and as a professional group What are we going to do about it? Are we going to oppose and fight it in its every detail? If we do I fear we shall be badly beaten and have many harsh terms imposed on us This is because chivalry and magnanimity are seldom characteristics of a political victor Or, shall we attempt to understand what the public wants, try to find out how far we can help, how government can help the people and how they can help us to care for them

I do not believe I, or any man, has a definite solution but I do believe each of us has a definite duty to aid in the solution As members of our respective societies each should bear his share of the society's ever willingness to perform well Each must support the honest efforts of the local state and national committees, which are giving much time to the subject As individual doctors, each of us can do much with his own patients Each time we neglect a patient overcharge him humiliate him or even unwittingly criticize his other doctor, we hurt ourselves, our professional brethren, we lower the dignity of our profession and strengthen the cause of the more radical proponents of state medicine

If each of us will think more frequently of medicine as a profession, recall more frequently our Hippocratic Oath, polish up those ideals we all had when we were graduated and then make an honest attempt to practice that way—if each of us will do this, I am sure a meeting of open minds will yet arrive at a solution wherein the public will still
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A REVIEW OF RECENT FINDINGS IN FILARIASIS

DENIS R. A. WHARTON, Ph.D., New York City

(From the Department of Public Health and Preventive Medicine, Cornell University Medical College)

IN THE past year, and particularly in recent months, there has been published a large and varied body of data dealing with the symptomatology, diagnosis, and therapy of bancroftian filariasis. Most of this applies to the infection among personnel of the armed services and therefore has a special interest, inasmuch as it refers to a fairly uniform body of healthy adults exposed to infection under what we may call controlled conditions. It will not be irrelevant to remember that these men have been in the pink of condition, their life has been arduous under conditions of prolonged exposure, they have had access to a splendid medical corps, and have, in fact, been watched over continuously and keenly by it.

It is from this background that recent observations have been published, and although they vary in their degree of excellence, they all provide valuable data in one way or another.

Filariasis today may be recognized in many ways:

1. by clinical and physical findings;
2. by finding the worm on biopsy;
3. by x-rays showing calcified worms;
4. by the pathologic picture in tissue section;
5. by the presence of microfilariae in the blood;
6. by the cutaneous test.

Clinical Observations

The clinical findings comprise lymphadenitis and lymphangitis, principally of the extremities, the trunk, and the inguinal and genital regions. If the condition is one of lymphadenitis it will be conspicuous in the epitrochlear nodes, since it requires little enlargement in size for these to become prominent. The inguinal nodes, and the femoral nodes also, are among the first to show involvement.

Lymphangitis may be diffuse or it may be underlain by a tough, unyielding, cordlike hyperplasia. It was observed by Buxton several years ago to be preceded by lymphadenitis, and many of the present authors support this view. It is retrograde or centrifugal, not ascending.

The consequences of chronic prolonged lymphangitis, such as hydrocele, lymph varix, or elephantiasis, have not been seen, and in this regard it should be remembered that these are early cases and have been removed from the endemic areas with presumably more or less light infections. Lymphangitis and lymphadenitis have been considered by Buxton, and by Dassanayake, to be the early lesions of filariasis, and they are so considered by King.[1]

The subjective symptoms of bancroftian filariasis are pain and tenderness, fatigue, headache, drowsiness, blurring of vision, chills, fever, dysuria, backaches, and many others. Pain and tenderness are the most consistently observed symptoms and occur in the inflamed region, particularly the scrotum, but pain is not always present. In a series of 89 cases, 88 per cent experienced tenderness. Although pain is usually the first symptom, O'Connor[2] has noted many patients showing lymphangitis or even frank elephantiasis who were completely unconscious of their condition. In the same group of 89 cases, Johnson observed swelling in only 88 per cent. This is an interesting observation, as these cases may contribute to the sum of those who may later show microfilariae without observable symptoms, apart from such vague and variable ones as fatigue, headache, drowsiness, etc.

Fever occurs in a few cases; it is generally of a low grade, and lasts for two or three days or even weeks. The lymphangitis and accompanying symptoms recur every few weeks, or months, or years, but it is thought that after every remission it becomes more moderate. This is the observation made of the infection in a fair percentage of the service troops, but it is by no means general. In not a few the change has been imperceptible or for the worse.

Malaise is conspicuously infrequent, although Michael[3] notes it among the usual symptoms.

Pathology

If we make a biopsy of the affected gland or lymphatic, we may, upon making an incision, come across a thin, hairlike worm a few centimeters in length occupying the afferent lymphatics or the spaces of the gland. The worm may be living. Michael[3] has proposed a useful rough-and-ready way to save time and labor by cutting through the node and immersing it in saline at 37° C. After twenty-eight hours or so the worm will have worked its way out of the node into the saline. This may be done freely when one has no hesitation about performing biopsies, and Michael hasn't—in fact, he thinks them beneficial—but

As presented, with slight changes, to the New York Society of Tropical Medicine, November 30, 1944.

the worm may be dead or absent, and so tissue sectioning must be resorted to

In tissue sections the inflammatory process may be followed from its early stages to its resolution and fibrosis If the worm should be in the node, the cortical and medullary sinuses are greatly enlarged, and there is a dense granulomatous zone of macrophages and argentophilic reticulum having as its border variable members of eosinophils, lymphocytes, and foreign body type giant cells At times the tissue eosinophilia is marked These are the main changes, and they are duplicated in those inflamed nodes in which no worms are found The subcapsular nodules may be hyperplastic increasing in number and size

Wartman[4] finds that the lymphatic vessels display a variety of lesions, such as (1) hyperplasia of the lining endothelium and of the reticular cells in the walls, (2) acute lymphangitis with or without thrombosis, and (3) fibrous obliteration Occasionally simple lymph thrombosis occurs in vessels which otherwise appear normal

A common lesion is swelling and hyperplasia of the reticuloendothelium of the lymph vessels accompanied by perivascular exudation of eosinophils Occlusive thrombi composed of coagulated lymph and lymphocytes are frequent, and become infiltrated and transformed into a dense fibrous tissue They may at times be seen surrounded by endothelial cells and suspended by strands of these to the wall

Hartz,[5] reporting from the Dutch West Indies, described a pathologic picture which is essentially the same as that described by Wartman In fact, Hartz's report is some months earlier He says that the epithelioid cell granulomatous endolymphangitis, especially when combined with epithelioid cell perilymphangitis and eventually with the changes in the lymph nodes, must be considered as fairly typical of filariasis In several of his cases the presence of the typical histologic lesions was the reason for his examining several more blocks of tissue which led to the finding of the filaria Both Hartz and Wartman are in agreement on this Michael considers tissue sectioning indispensable and they have the support of most of the recent authors reporting on the pathology of the disease Wartman feels that the lesions are characteristic of filariasis, as they are not formed where filariasis does not occur

Burhans and his associates, however, object vigorously to the diagnostic value of the pathologic findings, and consider that the condition can be seen in any node which has reacted to a toxic substance But they find laboratory data in general useless as a diagnostic aid "Our only support," they say, "for the diagnosis of filariasis was the clinical and physical findings" Nevertheless, when a gravid female worm was later found in a patient originally from the same unit but at another hospital, they considered their diagnosis confirmed

King[1] believes that the diagnosis can be established clinically with very little doubt and that the history of a prolonged stay in an endemic area, the finding of lymphangitis of the extremity, trunk, or genitalia, coming on after an interval of at least three months, combined with adenopathy, eosinophilia, and a positive intradermal reaction, completes the characteristic picture of early filariasis

It should be pointed out here that these findings elaborate upon but essentially confirm those of O'Connor and Hulse,[2] who made their report over twelve years ago

The inflammatory reaction appears to dispose of the worm in two ways Within the vessel a thrombus composed of coagulated lymph and lymphocytes, with some infiltration of eosinophils, macrophages, and giant cells, grows by coagulation and the accretion of cells until it literally strangles the worm Or occlusion of the vessel, and hence strangulation of the worm, may result from the inward pressure of the proliferating reticuloendothelial cells In either event, the macrophages systematically devour and remove the worm with, of course, tremendous loss to themselves But it sometimes happens that the process is interrupted by the formation of alkali soaps, according to Michael, and the deposition of calcium salts in the cuticular membrane Such calcified worms may be detected readily by the use of x-rays, as demonstrated by Golden and O'Connor[6] and substantiated by Burhans and associates and by Greig

A summary of pathologic studies shows that lymphangitis and lymphadenitis may result from the presence of living or dead adult filariae within the affected nodes or lymphatics, or elsewhere These studies stress the fact that the living worm is an offender, as against the view held by some of the earlier workers, notably Manson and Leiper, that the living worm was innocuous It must be said, however, that it is some time since insistence has been put upon the death of the worm as a prerequisite for the inflammatory process Thus O Connor and Hulse[2] thought it "possible that the healthy adult worms are not responsible for the more striking of the changes observed The nature of the reaction becomes more marked, and also changes with advancing disintegration of the parasites" At any rate, no one familiar with the antigenic mechanism of the nematodes could take that position, although certain texts definitely need revision in this matter

TABLE 1

	Clinical Cases	Percentage Negative for Microfilariae
Fiji Is. (Bahr)	417	63.6
Ceylon (Bahr)	52	92.3
Amoy (Manson)	65	41.5
Ellice Is. (O'Connor)	335	52.1
Tokelau Is. (O'Connor)	49	71.4
Sierra Leone (Blacklock)	138	79.0
Madras (Cruickshank *et al.*)	758	79.9
India at large (Acton and Rao)[9]	2,003	92.3
S. Pacific Is. (Lowman)	201	84.1

Careful examination of excised nodes has failed to reveal the presence of bacteria either in culture or in stained sections. The presence of the worm alone, or of its products, appeared to suffice to produce the changes recorded. The absence of leukocytosis or of high fever does not fit the pathologic picture of bacterial origin, nor does the retrograde nature of the lymphangitis. In this O'Connor appears justified, and the contention of Grace and certain other authors that streptococci are the exciting cause, while undoubtedly applicable in certain cases, does not appear to be generally tenable.

Epidemiologic Considerations

It has been thought that the filarial worm, i.e., W. bancrofti, took about a year to complete its cycle in man, and this belief was founded on considerable clinical and epidemiologic evidence. Hence it is not to be expected that our troops who have shown clinical evidence of the disease eight or nine months after exposure to infection will present blood positive for microfilariae. Even those who have been infected for over a year have been negative. This accords with past observation and normal expectations, and with what is known about the length of the life cycle of certain filarial worms. In this connection Bancroft recovered adult Dirofilaria immitis from the dog seven months after mosquito transmission, and adults and microfilariae nine months after infection. This was confirmed by Fülleborn, who recovered microfilariae eight months after mechanical inoculation. D. scapiceps from the snowshoe hare has completed its development in the domestic rabbit in eight months. It is surprising, therefore, that the opinion should have been expressed in responsible circles that the prepatent phase of the infection in the infected men is so prolonged as to require a revision of clinical and laboratory diagnostic methods. The earliest record of the finding of microfilariae in the blood, made by Sweet and Pillai in India, was in that of a child somewhat less than a year old.

A report, made by Flynn,[8] on 125 patients from the Pacific, states that 8 cases were positive for infection in their blood or lymph-node aspiration fluid. The average length of time between first exposure and symptoms was 10.2 months, the longest fourteeen, and the shortest eight months. These are the first cases of positive bloods mears published, and the appearance of microfilariae comes within the roughly established range.

The idea that the prepatent period is unduly extended has its counterpart at the other end of the scale. Michael, stating that the symptom-free period varied greatly from one to twelve months, nevertheless says, "Unquestionably at some time in the cycle of the parasite, microfilariae were present in the circulating blood, but this occurred long before clinical symptoms ever developed." This would imply the maturing of the parasite in a handful of days at most, which certainly would be exceptional.

Yokogawa claimed to have found microfilariae in one hundred and eleven, eighty-two, and fifty-six days after infection in volunteers. The microfilariae were found in one case fifty-six days after what he calls a second infection. But neither in this nor in his group of volunteers did he give assurances of prior freedom from infection. In fact, he believed that W. bancrofti could mature and produce microfilariae in as few as twenty days. This notion is mentioned here merely as a matter of record.

In filarious individuals, especially in children and adolescents, it is common to find microfilariae in the blood and no physical signs of the disease whatever. The observation is common, not absolute. But it is also frequently encountered that individuals with signs of the disease fail to show microfilariae. This does not refer merely to cases of elephantiasis, in which this lack is fairly general, but to all cases, and from different parts of the world. In the accompanying table the findings are stated in terms of the per cent of clinical cases without microfilariae in the peripheral blood.

Similarly, Hoffman and associates,[10] in Puerto Rico, found a high percentage of clinical cases without microfilariae.

It thus appears that filariasis as it occurs among our men may well reflect a commonly observed characteristic of the infection. The observation is tentative, for, in fact, the infections are so recent that we know too little about them to make generalizations or comparisons with other groups, though it may be found in time that the Atlantic and Pacific strains have significant differences.

The reasons for symptoms without microfilariae, and vice versa, are not all known. But, acknowledging the fact that the antigenic activity of the living worm is a functional matter, that is to say, the exudations from the mouth,

anus, and excretory pore are antigenic, it follows that the worm in the course of its development is constantly sensitizing the body. As it becomes lodged in the lymphatics the local irritation is intensified, and the entire reaction is aggravated, by the seminal fluids of the male and the uterine secretions of the female worm at the time of copulating and hatching. In such a case, inflammatory symptoms may appear without the presence of larvae, such as in fact occurs in early cases. Certain sensitive individuals would naturally be reactive at an earlier date after infection than others, and, of course, the death and disintegration of the male and female worms would be an important factor.

Wartman suggested the imprisonment of the microfilariae in the granulomatous tissue as a possible reason for their lack in the peripheral circulation. This may be, but it seems more likely that the parent worms were immature, since there were no microfilariae in the sinuses or lymphatics outside the worms. In immune persons, however, it is probable that the microfilariae get beyond the inflamed area with difficulty, if at all, being quickly destroyed by the aroused macrophages. In fact, O'Connor finds these sites a veritable graveyard for the microfilariae, and undoubtedly this is the mechanism of many an abortive infection.

Again, a nice balance may be struck between the host and parasite, both living in comparative harmony, the infected person showing microfilariae without signs or symptoms.

There is much to show that adult worms are killed, digested, and removed with nothing but fibrotic tissue to indicate that they had ever been there. Where this has happened on a sufficient scale to obstruct the lymphatic trunks, lymph stasis may be so complete as to result in elephantiasis without microfilariae.

Diagnosis

An increasingly important feature of diagnosis is the use of the cutaneous test for hypersensitiveness. The methods employed are those of Taliaferro and Hoffman,[11] and of Fairley.[12] In infected individuals they have proved to be approximately 90 per cent positive and have been about 90 per cent negative in healthy persons. D. immitis from the dog is employed as the antigen and 0.1 cc. of a 0.1 per cent saline extract is the usual dose. It is interesting that neither Fairley, nor Taliaferro and Hoffman found false positives shown in individuals harbouring species of helminths other than the filariae. The reaction is group-specific. King has made extensive use of this test and considers it highly dependable, and his results confirm those of the previous authors. In fact, in a group of 241 persons who had spent some months on Samoa but showed no signs of filariasis, 45 per cent were reactive, indicating that a considerable amount of subclinical filariasis exists. This fits in with the previous remarks on immunity and the statement that it is too soon to draw any more than tentative conclusions as to the status of the infection in our troops. It must be said that van Hoof, in the Belgian Congo, felt that the test was not sufficiently specific for use in natives who were heavily and variously parasitized. He was applying it to detect infestation with Onchocerca, but in view of the fact that other filarial infections and onchocerciasis itself of a subclinical nature exist in this region, this objection must be treated with caution. Yet Wright and Murdock, making tests with 1:2,000 and 1:4,000 dilutions in Guatemala, considered their tests nullified by other helminthic infections.

To overcome this objection, which the vast mass of data does not support, Bozicevich and Hutter[13] prepared an antigen in a dilution of 1:8,000 and used 0.01 cc. of this for the test. Excellent results were obtained in 25 patients diagnosed clinically as filarious, but without microfilariae in their blood. False positives in noninfected and allergic persons were successfully screened out.

Interestingly enough, in 7 of these patients the injection was followed by an exacerbation of lymphangitis, and in 8 by pain in the scrotum and lymph glands, particularly the inguinal. The much stronger doses of antigen employed by other authors have rarely resulted in such a show of hypersensitiveness. This, however, is undoubtedly the basis of the fugitive swellings sometimes observed.

As mentioned earlier, x-rays may be of use in detecting the presence of filarial worms in the lymphatics when the worms are calcified.

Treatment

The treatment of filariasis has hitherto been largely symptomatic. This has consisted in removal of the patients from the endemic area so as to avoid, if possible, massive infestation, to provide a change of climate, and to afford rest.

Cooler climates and rest have been found favorable in reducing lymphangitis and lymphadenitis, and undoubtedly this must be due to the fact that the lymph flow is slowed up under these conditions, whereas under the influence of exertion or warm weather the flow is stimulated and lymphangitis recurs. According to Johnson, exertion was responsible for renewed attacks in practically all cases, and warm weather in half of them. Johnson gives data that tend to show that there is a better chance of improvement the longer the stay in the United States, but at present it would

appear that improvement is temporary and conditioned on rest and a cool climate.

O'Connor has used x-rays with some success, especially in chyluria and to a lesser degree in lymphangitis. Burhans and associates recently reported very favorably on the use of x-rays, but reserved comment as to the ultimate outcome of treatment.

For a time it looked as if anthiomaline, as used by Brown, might fill the need of an effective therapeutic agent, but this appears due to be discarded.

Mapharsen has been tried by King with suggestive results, but it requires more careful trial before being put to general use in this infection. This is so because of the danger of suddenly killing the worm and releasing a sufficient quantity of antigenic material to cause severe lymphangitis or other manifestation of allergy. This, in fact, happened in some of King's patients, but until the effect of the drug is tried experimentally, the reason for this—and the effectiveness of the drug—can only be guessed at. The prospects for the satisfactory treatment of infected persons are therefore in doubt.

In this regard emphasis should be placed on the correct psychologic attitude of the patient. When the patient is informed as to the outlook his condition usually improves from the state of mental depression into which he may have *been permitted to slip.*

As a prophylactic measure it might not be unprofitable with persons recently exposed to infection, to inject an antiserum of high titer together with small doses of antigen, the object being to so raise their level of immunity as to lift it above the point of hypersensitiveness, and hence avoid lymphangitis and lymphadenitis. But this is as yet conjecture.

Conclusion

The question naturally arises whether filariasis is apt to be a menace in this country. In the light of present methods of coping with the infection it is probable that in many of the patients the infection will terminate spontaneously; those who remain infected will probably have relatively few microfilariae in their blood, and these may be reduced, but not eliminated, by chemotherapy. In any case, the living habits of the majority and a temperate climate will probably preclude the likelihood of the establishment of endemic centers here. Should a large body of troops from the South become infected, however, there is a definite likelihood of the appearance of endemic centers in the South. There are several species of mosquito fully capable of maturing the infective larvae. In a recent report of tests to determine the ability of domestic mosquitoes to transmit W. bancrofti, Newton and Wright found 100 per cent of Culex quinquefasciatus capable of maturing the larvae to the infective stage; 67 per cent of Anopheles albimanus; 12 per cent of Psorophora confinis; 6.8 per cent of C nigripalpus; 4.9 per cent of Aedes aegypti. And C. pipiens is known to be able to do so.

It is not improbable that the physician will come across cases in his practice which will tax his knowledge of tropical diseases. The present article has been written to provide a sound general understanding of the problems presented by filariasis.

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MEDICAL SOCIAL SERVICE COUNCIL DISCUSSES NEEDS OF SERVICEMEN

The Medical Social Service Council of the United Hospital Fund of New York held a meeting on the subject, "Wartime Developments in Hospital Care and Social Services for Servicemen and Veterans," on Tuesday, January 16 from 3:00 to 4:30 P.M. in the Einhorn Auditorium of the Lenox Hill Hospital.

Maj. Donald A. Covalt, MC, Executive Officer of the Convalescent Training Division, Office of the Air Surgeon, spoke on "Rehabilitation in the Army Air Forces." After Major Covalt's talk an Army Air Force Motion picture, "Out of Bed into Action," was shown.

Hospital and medical needs of returning servicemen were discussed by Louis Bennett, director of the Veterans Service Center in New York City. Reports by social workers in special veterans' clinics informed the Council of the social services available for veterans in the hospitals of New York City. Mrs. Curry Watson, chairman of the Medical Social Service Council of the United Hospital Fund of New York, presided at the meeting.

MEDICAL ASPECTS OF RECALCITRANT AND COMPLICATED ULCER

SARA M. JORDAN, M.D., Boston

(From the Department of Gastroenterology, the Lahey Clinic, Boston)

THE adjective "recalcitrant," if interpreted literally from its Latin derivation, means "kicking back," and in its broader sense is interpreted by Webster as "stubbornly rebellious" and "obstinate in defying constituted authority." The purpose of this paper is to attempt to analyze not only the factors which cause the kickback of ulcer but also the behavior of this "constituted authority" which meets with defiance in these recalcitrant cases. Or, to speak without allegory, I should like to discuss with you the problem of what ulcer does not heal or stay healed, and why.

As we older clinicians accumulate what we like to call knowledge and wisdom, again by virtue of our age we like to indulge in reminiscences. One most clearly stenciled in my memory is of a modest but cogent statement made by Dr. Ivy at an American Gastro-Enterological Association meeting some years ago when, after reviewing the work he and Mann had done upon the production of experimental ulcer in animals, he said something like this: "We have demonstrated that ulcer can be produced in various ways, chemical and mechanical. We can go no further with animal experimentation. We have reached an impasse beyond which lives the human being and his ulcer with its chronicity and its tendency to recurrence. That is your field, gentlemen."

On that occasion, I am sure we who were working with the problem of ulcer treatment were given a new stimulus to build on the foundation laid by these physiologists, and to add to their experimental observations our clinical experience in an endeavor to solve the problems relating to peptic ulcer.

On this occasion, therefore, before discussing the recalcitrant ulcer, it is fitting that we survey current opinion on the nature of peptic ulcer. The importance of this disease becomes constantly more impressive. Its high incidence and its disabling character are a distinct impediment to the present war effort and to sustained work on the home front. Hence the time is opportune for another review of the ulcer problem.

The physiologic experimental work of Ivy and Mann elucidated the nature of this disease to the degree that it became obvious that mechanical and chemical factors, as evidenced by spasm and hyperchlorhydria, are basic in the production of ulcer. Clinical observations confirm their findings and emphasize the importance of them. We find hypertonus and spasm combined with hyperchlorhydria not only in the presence of actual ulcer but also in the precursor stage of both the original ulcer and the recurrence.

Under the influence of cumulative experience with this disease, certain clinically substantiated premises may be formulated, chief among which are:

1. There is a group of persons who under certain conditions are prone to develop peptic ulcer and recurrences.
2. Hyperchlorhydria and spasm play a major role during the activity of the ulcer.
3. Treatment, to be effective, must be directed toward these two factors, and healing is attended by release of spasm and irritability and reduction of acidity.
4. The precipitating influences in recurrence are, in the order of their importance:
   (*a*) Psychogenic group (fatigue, nervous tension, and emotional disturbances)
   (*b*) Smoking
   (*c*) Dietary indiscretions
   (*d*) Alcohol
   (*e*) Neglect of routine rest and exercise

A brief consideration of these premises suggests that there is no definite type of human being who is prone to ulcer. The doer and the worrier, that is, the effective person who meets the experiences of life seriously and conscientiously, probably is the most frequent victim of this disease. Yet we are constantly confronted with the person who appears entirely carefree and light-hearted between the episodes of ulcer activity. However, probably most of us would agree that in peptic ulcer and likewise in ulcerative colitis, the conscientious striver most often is affected. In our experience, there is definitely no physical type of person who is more prone than others to develop an ulcer. Both sthenic and asthenic individuals are well represented in the ulcer group.

The role of sustained muscular contraction and irritability of muscle associated with hyperchlorhydria definitely has been established by experience. Hypertonus, pylorospasm, and duodenal irritability are an integral part of ulcer activity, as evidenced by hyperchlorhydria. In fact, without these findings an active ulcer hardly can be diagnosed. It is, of course, recognized that with the gastric ulcer the acidity is usually within normal limits and that with the [illegible]al ulcer a range of acidity which

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normal for the intact stomach can be considered abnormally high.

All treatment, both medical and surgical, is directed toward release of spasm and hypertonus and a diminution in acidity. The success of both medical management and gastric resection depends upon the attainment and maintenance of this objective.

The attainment and maintenance of ulcer healing is, by implication, the chief topic of interest in this discussion of the refractory ulcer. It is our belief that every ulcer is potentially healable, and that its refractory tendency is caused by certain fortuitous circumstances which have to do with the location of the ulcer and the behavior of the patient. The healing potentiality of every ulcer is vastly improved, we believe, by a detection of the ulcer before it has eroded too deeply into the gastric or duodenal wall, and an accurate regimen to promote and maintain complete healing. Early discovery is particularly important when the ulcer is located on the posterior wall of either the stomach or duodenum or in the second part of the duodenum in the neighborhood of the ampulla of Vater. In these three locations, deep erosions, often through to the pancreas or other adherent structures, make healing more difficult. The keynote of treatment must be adequate rest and neutralization, and in spite of the necessity for ambulatory treatment in these feverish days, we adhere to the belief that every ulcer which is causing severe enough symptoms to require medical help should be treated intensively, and if at all possible, with hospitalization, so that both rest and neutralization can be fully accomplished. It is both gratifying and interesting to observe the complete subsidence of even the most intense ulcer distress as these two therapeutic objectives are attained. In the severe cases, intensive methods must, of course, be used—constant neutralization, as with Winkelstein's drip, or with the drainage method devised by Dr. Wilkinson, of the Lahey Clinic, or with other systems.

Usually gastric ulcers can be followed to complete healing more graphically than duodenal or marginal ulcers, and when they are located on the posterior wall and show large craters, it is practically certain that they are burrowing through into the pancreas. Yet even some of these large lesions can be observed to heal completely, the fluoroscopic observations being supplemented and confirmed by gastroscopy. In our experience, the size of the ulcer has no significance as far as potentiality of healing is concerned, the largest often shrinking to disappearance more rapidly than some of the more persistent smaller ones.

That the potentiality of healing is lessened by complications is naturally true. An evaluation of this question depends largely upon statistics, and here it should be stated with emphasis that the statistics of ulcer cases are completed only with the death of the patient. We constantly are confronted with patients whose ulcer history, including both medical and surgical theory, occurred many years previously. For them and probably for their physicians the ulcer story had a satisfactory ending years ago, only to be reopened later with an unhappy chapter of recurrence. Only when we have a sufficiently large group of ulcer patients who have died either of their ulcer or of other causes shall we have satisfactory data as to their course after medical management or resection. This is especially true of the complication of hemorrhage.

At various stages in our ulcer experience, we have made policy rules for surgical intervention in the presence of complications. At the present time, however, we do not adhere to general rules but review thoroughly all the factors in the patient's case before deciding to initiate or continue medical treatment or to advise resection. Especially in hemorrhage, which we believe to be one of the most refractory of complications, our former rule of urging resection after two massive hemorrhages must often be ignored. Adequate medical management should, we believe, be used in every case, even after several hemorrhages, if it has not been previously tried. And by adequate medical management we mean complete rest and neutralization for a sufficient time to produce both clinical and roentgenologic evidence of healing, and a subsequent program for the maintenance of healing, including abstinence permanently from smoking and at least temporarily from alcohol and reasonable care in diet, rest, and exercise.

Adherence to such a schedule implies a complete understanding by the patient of the nature of his disease. He must be taught that the disease is not just a single lesion but is an indication of a systemic condition which must be managed just as diabetes and tuberculosis are managed. He must be informed that the history of hemorrhage indicates a possibility of further hemorrhage and that even with radical resection further bleeding has occurred; also, that while this operation may well offer him a better chance for freedom from this complication if the ulcer can be removed, failure to adhere to a postoperative regimen increases the probability of further bleeding from a new marginal ulcer. In other words, he must be told that a recalcitrant ulcer may occur after resection as well as in the intact stomach. With all these considerations in mind, if the patient has not yet conscientiously followed a good ulcer regimen and if he thinks

logically, he will wish first to try the effect of medical management before having this radical operation

The complication of obstruction may be both acute and chronic clinically Experience indicates that there actually are three groups of cases

1 Those in whom cicatricial fibrotic change has narrowed the lumen of the pylorus or duodenum to such a degree that normal function can never be restored
2 Those in whom there is a combination of cicatricial and inflamed tissue and in whom with the subsidence of inflammation the fibrotic tissue is still not too extensive to allow of good function
3 Those in whom the obstruction is entirely of an acute inflammatory nature, subsiding completely with medical management

The first group is definitely recalcitrant The second and third are amenable to medical treatment, even though the history and immediate serious condition appear formidable Usually a few days of medical treatment indicate whether there is a probability of permanent relief by medical management In certain cases of the second group a recurrence of obstruction may occur, and in such cases it is advisable to save the patient's time and money by performing a resection when the patient is first treated In an attempt to detect these cases, as well as those of group 1, in which cicatrix alone is the cause of obstruction, Dr Wilkinson, of the Lahey Clinic, originated a policy by which the patient is fed through a Levin nasal tube at regular intervals and allowed to drain likewise at regular intervals If the amount of drainage decreases within a few days, the obstruction is probably the result of temporary inflammation, and with the attainment and maintenance of healing, no further obstruction occurs If, however, the amount of drainage exceeds that of the intake and fails to decrease with treatment, the obstruction probably is cicatricial to such an extent that the ulcer is definitely recalcitrant and should be operated upon

Perforation in the acute form is, of course, a definite indication of recalcitrance and brooks no indecision as to the need for surgery The surgery in most cases is simple suture, and when ulcer later recurs in such a case the patient often fears another perforation In our experience, this is not in itself a reason for surgical intervention We believe that the same conditions hold for such an ulcer as for those which have never perforated —that they are essentially healable by medical management Subacute perforation with the formation of adhesions around the perforated area often remains undiagnosed until the failure to heal makes surgery necessary and the condition is revealed In other cases medical management is effective and only the pronounced and persistent deformity of the area around the ulcer suggests the presence of this condition

The gastric ulcer has one other form of recalcitrance which has been discussed extensively but which again merits brief mention in this paper, namely, malignancy Many gastric ulcers heal with medical management, some never to recur, and others show the same tendency to recurrence as duodenal or jejunal ulcers However, in certain of these recurrent gastric lesions malignant changes have been found, and in the light of experience we are now convinced that it is wise to consider the recurrent gastric ulcer as definitely recalcitrant because of the possibility of malignant changes

We have long used three criteria for benignity of the gastric lesion, namely, the disappearance of the lesion by roentgenologic and gastroscopic examination, the complete relief of symptoms, and the disappearance of occult blood from the stools We have added a fourth, namely, that the gastric ulcer does not recur

The tendency of ulcer to recur is its most unpleasant characteristic Even long remissions give no assurance of cure As I have already said, this fact makes it necessary for the intelligent person who has an ulcer to become thoroughly familiar with the nature of the disease He and his medical counselor must become the constituted authority which must not be defied by the recalcitrant ulcer The incidence of recurrence demonstrates not only the character of the disease but also, in my opinion, the fact that there is more undertreatment than overtreatment Early detection of the original lesion and of an impending recurrence, followed by intensive treatment, is of the utmost value in preventing stubborn recalcitrance

The factors favoring recurrence are unquestionably of two groups

1 The relatively uncontrollable ones, such as emotional disturbances, fatigue, and nervous tension
2 The easily controllable ones, such as smoking, dietary care, rest, exercise, and alcohol

They operate synergistically, but if the second group is always under control, the inroads of the first group are much less disastrous It should be mentioned that the diagnosis of ulcer recurrence must be as carefully made as that of the original lesion Not infrequently, because of the

ulcer history, other conditions are confused with it; indeed, often an irritable colon caused by magnesia used in the treatment of ulcer causes symptoms which are not sufficiently evaluated and are thought to be caused by ulcer recurrence. The possibility of recalcitrance after resection must be acknowledged preoperatively by the surgeon and a serious attempt must be made to prevent jejunal ulcer by a postoperative regimen.

Any discussion of the recalcitrant ulcer would be incomplete without recognition of the possibility of prevention of ulcer in its original or recurrent phase. Some among us believe that an attempt to prevent ulcer can be made with the detection of a tendency to hyperchlorhydria and spasm in the group of individuals who, we believe, later develop ulcer if nothing is done to protect them. Certainly an impending recurrence can be detected in the individual who has had a previous ulcer, by a rise in acid and increase in irritability, and such recurrence can be averted by immediate prophylactic measures.

In conclusion I would like to emphasize the following points: Since ulcer is a disabling systemic disease to which a certain group of human beings is susceptible, the earliest possible diagnosis should be made and the most intensive medical treatment used. A certain percentage of ulcers are recalcitrant but recalcitrance is very often in the patient himself and not in the ulcer. This can be overcome best by an early enlightenment of the patient concerning the nature of his disease. Gastric resection in the hands of experienced surgeons offers another opportunity for treatment of the recalcitrant ulcer but if surgery is necessary, postoperative recalcitrance can best be avoided if a careful regimen is used postoperatively.

YOUR DOCTOR

The war has not brought us any serious epidemics and no increase in child mortality. Yet 50,000 physicians are away with the armed forces. The home front medical job has been done by your doctor and all other doctors working overtime. It has been done by elderly physicians who have come out of retirement to help, and some of these have worked so far beyond their strength it has meant their death.

Every day, twenty-four hours a day, thousands upon thousands of doctors have labored without thought of self to pull the country through the war without a letdown of our high health standard, a standard which in spite of what some politicians would have us believe, is like our living standard, the highest in the world. Our doctors have not gone on strikes, they have worked day and night until exhausted. They have not taken vacations. Their hours on the job would not be permitted by union officials. They have not faltered in their attempt to help win the war and the peace after the war by keeping people at home in just as good health as possible. This has been a tremendous task for the doctors left with us. It has been a task greater than the people will ever know.

From now until peace comes, however, everybody will have to do as much as possible to help the doctors. They, like other human beings, must have a reasonable amount of sleep and rest. They cannot continue to be on the job night and day indefinitely. If they attempt to do so, they will break down themselves and we will have fewer doctors on whom to call. This means no person should call a doctor at night unless it is absolutely necessary. Call him in the daytime. Let him sleep as much as he can at night. He can then do a better job from breakfast time to bedtime.

Already far too many of our doctors have to start work early in the morning, continue with only enough time taken out to get a little something to eat until far into the night, and then, after getting to bed in an exhausted condition, are called out as soon as they get to sleep or after they have had but an hour or two of rest. No human being can keep up such a pace for long. It is truly remarkable that so many doctors have been able to do so for as long as they have.

Doctors should be called when needed. We cannot maintain a high standard of public health unless they are. They should not be called these days when they are not needed because this means they cannot give enough attention to those who need them badly.

Every day, your doctor works longer hours than you do. He is working while you work and he is working while you sleep. There are few, if any, other people who put in as many hours a day as he does. He cannot plan ahead to take a vacation or even a day off. When he feels he absolutely must get away to rest, somebody needs him. It is well to keep this in mind when you are tempted to call a doctor, but know in your own mind you do not really need him. There are not enough doctors to go around and if we are to have the services of one when we need him, we must share his services with others who also need him.

Also, it is well to keep in mind the truly marvelous service our doctors have rendered during this war period. We should keep it in mind when politicians say the whole procedure should be changed, that when doctors take their orders from politicians, the service will be better. These past three years have pretty well demonstrated that medical service could not be better than the doctors, unhampered by political interference, have made it. Yet, there is a bill pending in Congress which, if passed, would deprive the public of much it is getting now.—*Orange County Courier, Jan. 4, 1945*

THE ROLE OF QUININE IN COLDS, INFLUENZA, AND VIRUS PNEUMONIA

HENRY M FEINBLATT, M D , Brooklyn, New York

EACH decade brings many new contributions to therapy With the general interest aroused by their publicity, some of the old standbys are more or less pushed out of the picture The value of the older drugs is taken for granted by the older clinician, who feels that the facts should be just as obvious to his young assistant

The younger clinician, on the other hand, is impressed by the newer "miracle" drugs and often does not have the time or desire to learn about some of the older ones This situation is largely true of quinine

In the treatment of malaria, quinine continues to be our most valuable drug This value is so great that our government, notwithstanding the availability of synthetic substitutes, has asked physicians everywhere to restrict the wartime use of quinine to malaria Having in mind the bitter experience of Bataan and the Philippines, where lack of sufficient quinine proved a serious handicap in maintaining the health and activity of our soldiers, it has been decided very wisely that the precious reserves of this indispensable drug should be limited to its important medico-military use, namely, the prevention and treatment of malaria

It is to be hoped that Java, the world's principal source of cinchona and quinine, will soon be wrested from the enemy's possession Then quinine will again be freely available to American physicians not only for use in malaria but also in other conditions, such as the common cold and influenza, where it is believed to be of therapeutic value

Much has been written concerning the cause, prophylaxis, and therapy of the common cold, influenza, or grippe, as it is sometimes called, and the newer disease entity called virus pneumonia By the trial and error method, many theories have been proved practicalities and others have been dropped because with usage they did not live up to their promise

It seems to me, from the vantage of thirty years' experience, that in the therapy of these common ailments which attack and temporarily incapacitate so many of our population, a most helpful agent is very often overlooked I have found quinine of value in the treatment of these upper respiratory infections

In these conditions quinine acts as an antipyretic and analgesic, reduces the duration of the illness, diminishes the occurrence of complications, and may abort the illness itself if given early enough

Most textbooks on therapeutics mention that quinine has been used in the treatment of colds and influenza with beneficial results Some advocate its use as a prophylactic In this connection it is of interest to note that during the world wide epidemic of 1918 and 1919 numerous hospitals in southern Europe reported that influenza was practically unknown among the malarial patients who had been treated with quinine [1] Veilchenblau,[2] from his experience during this epidemic, stated that quinine is the only drug "in which a specific action can be perceived" I, too, believe that quinine exerts some degree of "specific action" against colds and influenza

Several recent American writers have commented on the value of quinine in the prophylaxis of influenza Barge,[3] on the basis of his experience in Florida, believes that, since quinine causes leukocytosis and increases the body defenses during the initial stage of influenza, it might be given as a prophylactic He further states that the evidence indicates that the incidence of influenza is much lower among persons taking quinine than among those not using the drug

In a study of 6,500 individuals taking quinine during the epidemic of January, 1941, as compared with 6,500 controls without the drug, Schnurman[4] found only one-fourth as many cases of influenza in the quinimized group as in the controls During the period of quinimization the number of cases waned, only to rise when the drug was discontinued

During a period of twenty two years, Showalter[5] prescribed quinine on numerous occasions in diseases of the respiratory tract, especially when the white-cell count was normal or below In his follow up study of these cases he was impressed with the increased white blood cell counts and marked improvement in the clinical condition of the patients Calling attention to the leukopenia caused by influenza and the leukocytosis produced by quinine, both in the early period of infection or use, Showalter suggested that the increase of white cells following quinine may have a great deal to do with the favorable clinical results

The cause of the common cold and influenza has long been a controversial issue On the basis of transmission experiments on apes and

humans, the cause of the common cold is now generally considered to be a virus. That the causative agent of influenza is a virus has been generally accepted since 1933, when Smith, Andrewes, and Laidlaw[6] succeeded in isolating a filtrable virus from patients with influenza by inoculating ferrets intranasally with filtrates of throat washings from patients with this disease. In 1940 Magill[7] and Francis[8] almost simultaneously demonstrated a second strain of virus causing influenza.

Within the past five years I have had under observation cases of nonspecific pneumonia which clinically resembled reported cases of primary atypical pneumonia, or "virus pneumonia," as it is now commonly called. In the treatment of ambulant and hospital patients, the symptomatic improvement and the rapidity of recovery of those treated with quinine were better than in untreated cases.

Although the disease simulates influenzal pneumonia in many respects, there is ample evidence to prove that it is a distinct disease entity. I am in agreement with Longcope's[9] view that, because of certain distinctive features of the disease, the causative agent may well be a filtrable virus. These features are its contagiousness, the long incubation period of ten to fourteen days, the inability to demonstrate by culture of the sputum or blood or by agglutination reactions that it is associated with any known pathogenic bacteria, and the peculiarity of the pathologic changes occurring in the lungs.

Attempts to isolate a virus from the throat-washings of a number of clinically typical cases in a wide variety of animals proved unsuccessful until 1940, when Weir and Horsfall[10] went to Jamaica in order to try to infect the mongoose. They were able to isolate a virus capable of producing pulmonary consolidation in these animals. It differed from other viruses known to cause infections of the respiratory tract in man. It has been impossible for workers in this country to reproduce these experiments, as it is illegal to import mongooses into the United States.

Although the virus nature of the disease is still speculative in the absence of confirmatory evidence, in view of the nature of the malady I am inclined to feel that it is essentially of virus origin.

The mechanism of the action that is exerted by quinine is still unknown. Three centuries of quinine therapy in malaria have not elucidated the action by which the plasmodium causing the disease is killed. The most popular concept is that quinine is a general protoplasmic poison and therefore toxic to unicellular organisms, as distinguished from groups of cells, as in the tissues. Use of quinine does not prevent a person from becoming infected with malarial plasmodia, but it does prevent the parasites from reaching a level of multiplication which will cause clinical symptoms of the disease.

One might speculate concerning the mechanism of the action of quinine in the treatment and prophylaxis of these respiratory infections of virus origin. The possibility remains that quinine acts on these viruses in a manner similar to its action on the malarial plasmodia.

In view of their specificity in pneumococcus pneumonia, the sulfa drugs have been given in numerous cases of virus pneumonia. As a matter of fact, it was failure of the sulfa drugs to produce their typical reaction in many cases that prompted the physician to search further for accurate diagnosis.

"The sulfonamide compounds," states Reimann,[11] "have not yet been shown to have any influence on influenza or other influenza-like pulmonary infections which have been prevalent in recent years, nor are they of value in pulmonary congestion, or in mixed infection of the lungs where bacteria susceptible to the sulfonamide compounds are not present."

In an experimental study, Coggeshall and Maier[12] tested various sulfonamides against influenza virus in white mice. They found that none of the drugs used was effective in delaying or preventing the development of the disease or in reducing the mortality of the infection.

The merits of the sulfa drugs are without doubt known to all, but their use should be limited to diseases caused by organisms which are susceptible to them. Because of their possible ill effects, they should not be used promiscuously and should be avoided in these virus infections in which they have no specific action.

I have routinely used 6 to 10 grains of quinine per day in these cases without observing any toxic effects. I have never had a case evidencing renal damage or degenerative changes of the blood.

Conclusions

1. In my experience quinine has proved to be a valuable therapeutic agent in the treatment of the common cold, influenza, and virus pneumonia. It acts as an antipyretic and analgesic, reduces the duration of the illness, prevents complications, and, if given early enough, may abort the infection.

2. The mechanism of the action of quinine in respiratory infections of virus origin is considered to be similar to its action upon the malaria plasmodia.

3. The sulfonamide compounds are not indicated for this group of diseases.

4. There have been no untoward effects with

use of quinine in dosage of from 6 to 10 grains daily

5 Because of the wartime shortage of quinine and its medico-military need for malaria therapy, the usage of quinine for common colds, influenza, and virus pneumonia may not be practical until after the war

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THE EPIDEMIOLOGY OF CANCER

Concentration of control measures on those individuals or groups who have a greater than average chance of developing cancer because of exposure to one or more of a variety of predisposing factors or conditions was recommended recently by Dr Morton L Levin, assistant director of the Department's Division of Cancer Control, in an address before the Cooperative Cancer Control Committee, Pittsfield, Massachusetts

Speaking on "The Epidemiology of Cancer," Doctor Levin said that effort can be focused on certain elements of the population through education periodic examination, and early diagnosis to the same extent to which it is possible to predict the occurrence among them of cancer or certain forms of cancer To the individual himself a knowledge of certain aspects of cancer epidemiology, i e information regarding what groups are most likely to develop the disease and under what circumstances, may enable him to take preventive measures or steps that will lead to early diagnosis of the disease and the prevention of its more serious consequences

Dr Levin pointed out that with present knowledge it is impossible to say that any particular person or group will not have cancer It is known, however, that certain units of the population have a greater chance of developing this disease or some specific form of it, because of association with one or more of a number of factors such as

1 Exposure to various chemical and physical agents The substances and agents now known, or believed, to cause cancer in man include arsenic, tar, pitch and related products, certain amine dye compounds, roentgen rays, radium rays ultraviolet rays benzol, possibly asbestos, nickel carbonyl, and chromates Persons exposed to carcinogenic agents can be protected against such exposure and should be given frequent medical examinations even after they have left the occupation or activity concerned In this way cancer may be prevented or detected at an early and readily curable stage

2 "Precancerous" conditions Various diseases and abnormalities are frequently the forerunners of cancer For example, chronic cystic mastitis in women means increased liability to the development of breast cancer, polyps which are benign tumors, are prone to become malignant when they occur in the stomach, intestine, or rectum On the skin, the dry wrinkles often seen in farmers and sailors, sebaceous cysts or wens, scars resulting from burns, and a type of flat brown or gray wart seen in elderly people are the most common precancerous conditions There is also a relationship between syphilis and certain forms of cancer

3 Chronic irritation Various nonspecific types of irritation are sometimes productive of cancer For example, that caused by excessive smoking is frequently associated with cancer of the mouth and of the upper respiratory tract The brown skin mole may become malignant if it is subjected to mechanical irritation or to injury

4 Hereditary or familial factors With the exception of a few rare [illegible] hereditary, there is [illegible] of cancer is determined [illegible] a family in which cancer [illegible] of tumors does occur, or in which any type of cancer has occurred frequently, should take steps to avoid irritation of the site concerned, to remove precancerous conditions, and to act promptly should [illegible]

land, where increased mortality from certain forms of cancer in the lower economic groups has been studied most extensively, it has been found that among unskilled workers the cancer death rate is about twice that for the highest group of business man and professional workers The high mortality in the unskilled group is confined to cancer of the skin, lip, larynx, mouth, esophagus, and stomach In married women, classified according to the occupation of the husband, a similar though less marked relationship exists indicating that factors associated with general living conditions, rather than occupation, are responsible Broadly similar findings have been reported by various investigators in this country

[illegible] that present knowledge cancer among various use of exposure to these ors suggests the proba of cancer control measparticularly fruitful—

Health News, Dec 18, 1944

MYCOSIS FUNGOIDES: TWO UNUSUAL TYPES

One Presenting Leonine Facies; The Other, Parapsoriasis (?) in Patches for Thirty Years

E. WILLIAM ABRAMOWITZ, M.D., New York City, and BEN KANEE, M.D., Vancouver, Canada

(From the New York Skin and Cancer Unit, New York Post-Graduate Hospital and Medical School, Columbia University)

MYCOSIS fungoides, while not uncommon in dermatologic practice, always invites discussion. Like other types of the lymphoblastomas, the cause remains unknown. The clinical course of mycosis fungoides is chiefly cutaneous. Visceral participation may appear later in the course of the disease.

In brief, mycosis fungoides generally starts with a sharply limited eczematous lesion that is indistinguishable clinically and histologically from an ordinary dermatitis. Itching is common but may be absent. This is the so-called premycotic or first stage of the disease and may last for several months or longer. The eczematous eruption may disappear spontaneously or recede with topical medication or with superficial fractional x-ray therapy.

As time goes on, recurrence of the eczematous patches takes place. They become more and more infiltrated and assume various-sized figurative patterns. Histologic study of an excised lesion will reveal in many instances a characteristic polymorphous cellular infiltrate, some showing mitotic figures, the presence of a fine reticulum, and Pautrier's abscess in the epidermis. This is the second stage of the disease and may last for years without any apparent disturbance in health. The lesions come and go. X-ray therapy is usually of help.

The third and final stage of the disease is characterized by the development of granulomas that may reach the size of an orange or larger. Hence the other name, granuloma fungoides, which is given to this skin affection. The histologic picture is the same as that seen in the second stage but is more pronounced. The eruption is by now more generalized and the patient in time succumbs, either from exhaustion or from some intercurrent complication.

A few of the unusual features of mycosis fungoides that may be mentioned are the development of erythematous lesions instead of eczematous in the early stages of the disease; the absence of the first two stages and the development of granulomas from the start—mycosis fungoides d'emblée. Instances are reported in which some form of leukemia, lymphosarcoma, or Hodgkin's disease either developed during the course of or else appeared as a final phase of mycosis fungoides of the skin.

Reports of unusual cases of mycosis fungoides may be of help in recognizing others of an atypical nature. We are recording two such cases.

Case Reports

Case 1.—Mycosis fungoides: leonine facies—Mr. A. S., 46 years old, was born in Italy and has been in this country for thirty years. He was married and a clothes presser by occupation. He had bronchitis and malaria as a child, otherwise his health had been good.

About five years ago, a half-dollar-sized, red, scaly patch, which lasted about one month, appeared on the skin of the right side of his chest. One year later red scaly patches appeared on his legs with involvement of the face, chest, back, and arms, during the ensuing year. This persisted despite treatment by various dermatologists. During the past year swellings appeared on the face, scalp, and ears.

Description of the Skin Lesions: He was admitted to the New York Post-Graduate Hospital, service of Dr. I. Rosen, on May 28, 1943. The most conspicuous lesions were those present on the forehead, eyebrows, eyelids, and cheeks. These presented many marble-sized nodular infiltrations that threw the skin into deep folds, resulting in the appearance of a leonine facies. Closer inspection revealed filliform and papillomatous vegetations superimposed on the nodular infiltrations. The scalp also presented many nodules, most of these covered with crusts and scales. Much of the scalp was denuded of hair. There was a slight purulent and fetid discharge from the scalp and face that was particularly noticeable on pressure of the vegetating lesions on the forehead. The eyebrows and eyelashes were gone. The entire skin of the face, including the eyelids and ears, was thickened and lichenified (see Fig. 1).

The trunk showed numerous sharply limited dry and infiltrated plaques, some as large as the palm, all of a violet-red color. Nodular lesions were also present here and there. The skin of the genitals and adjacent areas was red, edematous, and weeping. A few nodular infiltrations were noticeable on the arms and legs. In addition, a dime-sized infiltrated and ulcerative lesion was present on the anterior surface of the left thigh. The palms and soles were of normal appearance.

Physical Examination: This revealed nothing of note except that the axillary, epitrochlear, and inguinal lymph glands were olive-sized and shotty.

Read at the Annual Meeting of the Medical Society of the State of New York, New York City, May 10, 1944.

TABLE 1.—Blood Counts

Date 1943	Leukocyte Count	Polymorphonuclear Leukocytes	Lymphocytes	Erythrocyte Count	Hemoglobin Percentage	Platelets	Bleeding Time	Eosinophiles	Basophiles	Monocytes
5/29	15 050	72	9	4 070 000	60			16		3
6/7	18 000	72	13	4 100 000	63	350 000	1½ min Coagulation time 4½ min	11	1	3
6/16	22 300	76	10	4 270 000	66			9	1	4
6/22	22 750	76	13	3 880 000	60			10		1
7/24	13 600	72	6	4 080 000	72			9	1	12
8/5	10 000	79	6	3 800 000	72			5	2	8
8/13	7 700	72	24	4 250 000	78					4
9/11	15 550	69	14	4 740 000	81					7

Roentgenogram of Chest The report states that the heart was essentially normal The lungs showed an old puerile type hilus and central tubercle thickening and fibrocalcific deposits

Laboratory Data A twenty four hour urine specimen (May 29, 1943) was essentially normal Urea nitrogen was 8 5 mg per 100 cc , nonprotein nitrogen was 24 mg per 100 cc , urea nonprotein nitrogen, 34 mg per 100 cc , chlorides 510 mg per 100 cc , glucose 55 mg per 100 cc , cholesterol, 190 mg per 100 cc , vitamin C (blood plasma), 0 4 mg per 100 cc The cephalin flocculation test (Hangar) was 4 +, the icterus index was 4 6 units The sedimentation rate was 26 mm per hour, prothrombin clotting time, 26 5 per cent of normal (Russell viper venom), the blood Wassermann reaction was irregular, and the Kahn precipitation test was negative

Bone Marrow Smear (June 2 1943) Examined by Dr M N Richter The bone marrow smear showed numerous cells, a great majority of which were myelocytes of some variety There was no preponderance of any one type and there was no apparent defect in maturation Erythroblasts were present in somewhat diminished numbers Diagnosis myeloid hyperplasia of the bone marrow Chronic myeloid leukemia was not excluded Lymphatic and acute myeloid leukemia seemed unlikely

Histologic Studies Biopsy from lesion on forehead—On June 10, 1943 Dr Wilbert Sachs reported that at one edge of the section there were several dilated follicles the walls of which were broken There was considerable necrosis about these, with a tremendous cellular infiltration of small round cells polymorphonuclears, plasma cells, and numerous giant cells This portion was interpreted as folliculitis with a foreign body cell reaction

At the other edge of the section, there was a considerable cellular infiltration throughout the mid and upper cutis with dilated blood and lymph vessels The overlying epidermis at this point was irregularly acanthotic with parakeratosis of the surface layer The palisade layer was intact and there were no cavities within the epidermis The cellular infiltration was composed of small round cells, wandering connective tissue cells a few polymorphonuclear leukocytes, some multinucleated cells, and many plasma and epithelioid cells Between the cellular elements there was a fine reticulum There were some mitotic figures and grouping of cells The diagnosis was definitely that of mycosis fungoides Dr M N Richter, of the Department of Pathology, concurred in this diagnosis The microphotograph is omitted, because of the classic textbook microscopic appearance of the section

The histologic picture of the biopsies excluded leprosy Mycobacterium leprae was absent in stained section and also from the nasal smear

The report of the skin biopsy, dated April 18, 1942, taken at Johns Hopkins Hospital, where the patient had been under observation, was also of mycosis fungoides

Excised Right Axillary Lymph Gland On June 14, 1943, Dr A E Margulis, of the Department of Pathology, reported that the gross and histologic picture suggested an inflammatory and not a neoplastic process The diagnosis was dermatopathic lymphadenitis

Comments and Review of the Literature The patient received about 40 x ray treatments and numerous topical applications in other cities with little or no benefit While he was under our observation, x ray therapy (fractional unfiltered doses) to the face trunk, and extremities caused some involution of the lesions in all areas Itching subsided with the help of a calamine emulsion reinforced with menthol and phenol Wet dressings of potassium permanganate solution, the application of triple dyes and later a sulfathiazole cream to the face and scalp reduced the discharge The patient was sufficiently improved after three months to leave the hospital on August 15 for further treatment at the Skin and Cancer Unit He had to be readmitted to the hospital on December 18, 1943, because of a return of itching with weeping, scaly red patches on the genitals and the lower part of the trunk The facial appearance had not changed since he left the hospital except that there was little or no discharge and no odor

The blood count during the patient's first admission to the hospital showed a leukocytosis reaching a high of 22,750 The differential count, however, was in the normal range and smears of the bone marrow indicated that some form of leukemia was unlikely After his second admission to the hospital, his leukocyte count reached a high of 23,000 but the differential count was still in the normal proportions

The patient's stay in the hospital was characterized by recurrent weeping eczematous patches principally confined to the genitals and the lower part of



FIG. 1. Mr. A. S. (Case 1), showing the nodular infiltrations of the face, giving the appearance of a leonine facies; also the smaller vegetating lesions.

the trunk and thighs. Bouts of fever with general debility were also a feature. While the facial lesion appeared flattened, the eruption on his trunk became more elevated and seemed to be entering the fungoid or final stage of the disease.

The duration of the eruption, the severe itching, the eczematous recurrences, as well as the nodular appearance of the lesions of the trunk present in this patient, were classic for mycosis fungoides. The leonine facies was unusual. This was caused by the presence of nodular infiltrations on the face, throwing the skin into folds, as seen in leprosy. Papilloma-like elevations surmounted the nodules, giving them a raspberry appearance.

A review of the literature disclosed comparatively few reports of mycosis fungoides presenting a leonine facies.

The first report was made by Köbner in 1864.[1] A woman, 40 years old, had frambesia-like lesions not only on the face, but also on the trunk and extremities. A biopsy revealed the structure of mycosis fungoides. Demange,[2] in 1873–1874, reported a man, 60 years old, with tumors of the scalp and swelling of the skin of the face and eyelids, and also lesions of the body. Histologic study indicated the picture of mycosis fungoides or lymphadenoma. There was no mention, however, of a leonine facies. Galliard,[3] in 1882, observed a man, 37 years old, at the Hôpital Saint Louis with nodular lesions on the trunk. The skin on the face was thrown into deep folds and ridges, giving a leonine appearance. Ehrmann,[4] in 1913, presented a man with mycosis fungoides of the body with a leonine facies. There were no details as to age, biopsy, etc. Decrop and Salle,[5] in 1921, described facial lesions similar to those seen in the nodular type of leprosy in a man, 50 years old, an inhabitant of North Africa. The patient presented lesions characteristic of mycosis fungoides on the body. The biopsy confirmed the diagnosis of mycosis fungoides. Berggreen[6] reported a man, 59 years old, with mycosis fungoides, confirmed by biopsy, of twelve years' duration. In the last year of his disease nodular infiltrations of his face appeared, resulting in a leonine facies. Various standard textbooks on skin diseases give little or no description of this type of involvement of the face.

The leonine facies is encountered in the second stage of mycosis fungoides when infiltration of the skin lesions is developing and also in the terminal stage of the disease.

Parapsoriasis (?) in Patches

Parapsoriasis in patches was first described by Brocq[7] in 1897. The classic attributes of Brocq's disease briefly consist of brownish-red discrete and confluent noninfiltrated plaques that are more or less persistent and preferably located on the trunk and extremities. A fine furfuraceous scaling and/or lichenification may be observed in the plaques. Pruritus is usually absent. The general health remains good. Treatment is of little avail. The histologic picture of parapsoriasis in patches is often banal and is not accepted by all observers as decisive.

The incipient, especially the erythrodermic first stage of mycosis fungoides and the patch variety of Brocq's disease, may resemble each other both clinically and histologically. Wise and Rosen[8] and others have indicated the difficulties in differentiating these two diseases. Kiel,[9] in a critical review of the literature, discloses cases reported as classic parapsoriasis in patches that later turned out to be mycosis fungoides. He believes Brocq's parapsoriasis in patches is an incipient stage of mycosis fungoides. The following case report is an example of parapsoriasis in patches, both from the clinical and histologic standpoint, which later proved to be mycosis fungoides.

Case Report

*Case 2.**—A private patient, Mr. H. S., a merchant 54 years old, was born in England. His past history was irrelevant except for typhoid fever in 1914.

Description of Skin Lesions (November 1927): The right mammary area presented a sharply lim-

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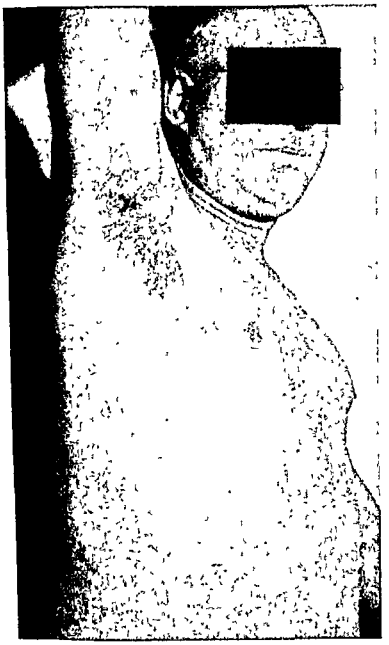


FIG. 2. Mr. H. S. (Case 2), showing the tanned quiescent lesion on the right mammary area. This and most of the patches on the trunk had been present for about thirty years. Later, the old eruption on the trunk, as well as some new areas that appeared, assumed a more reddened and slightly infiltered appearance. There were no subjective symptoms.



FIG 3. (Case 2) Sparse cellular infiltration of small round cells and wandering connective tissue cells. Slight disorganization of basal cell layer. Diagnosis: parapsoriasis. (Biopsy of right biceps area, April 26, 1929.) × 325.

ited, erythematous, slightly crusted dermatitis with some infiltration. This patch had been present for thirteen years without any discomfort, but had begun to itch recently and appeared more red than usual. Many light-brown scaly patches of various shapes and sizes covered his trunk and the inner sides of his arms. These did not itch nor did they annoy him in any other way. He said these had appeared in 1914 shortly after the eruption had developed on his chest.

Physical Examination (May 31, 1927) by Dr. H. O. Mosenthal: The patient was 42 pounds overweight (caused by overeating). The blood count was as follows: hemoglobin, 94 per cent; erythrocytes, 5,152,000; leukocytes, 6,505; polymorphonuclear leukocytes, 44 per cent; small mononuclears, 42 per cent; large mononuclears, 5 per cent; eosinophiles, 3 per cent; basophiles, 0 per cent; and transitionals, 1 per cent. There was an occasional faint trace of sugar in the urine with a somewhat lowered renal threshold. The blood-sugar curve was slightly below normal but it was believed no fundamental diabetes was present. The basal metabolic rate was 28 per cent. The rest of the laboratory and physical examination revealed nothing of note.

Clinical Course: The lesion on the right side of the chest receded under three fractional doses of unfiltered roentgen rays in 1927. No treatment was given to the eruption on the trunk.

He returned April 21, 1929, stating that the lesion on the chest had started to itch again and had become reddened. The chest lesion received x-ray therapy. Ultraviolet radiation was given to the brown patches on the body. He stopped treatment in July of the same year. The patch on his chest had turned brown and the itching had gone. There was no effect on the lesions of the body from the ultraviolet radiation therapy. No photograph was taken, but two biopsies were made—one from the eczematous lesion on the right chest and the other from a brown, flat patch on the right biceps area.

After an absence of thirteen years, during which time his skin gave him no trouble, he returned on July 31, 1942, because of a recurrence of redness and itching of the patch on the right side of his chest. The brown patches on his trunk and arms had become brown-red in color; no new lesions had appeared on the abdomen and upper and lower extremities. The photograph in Fig. 2 was taken in 1942. The appearance of these patches still conformed to what is commonly called parapsoriasis en plaques of Brocq.

Enlarged glands were palpable in the axillae and in the groins. His weight was about the same (195 pounds). Physical examination, roentgenologic study of the gallbladder and gastrointestinal tract, electrocardiogram, and blood counts revealed

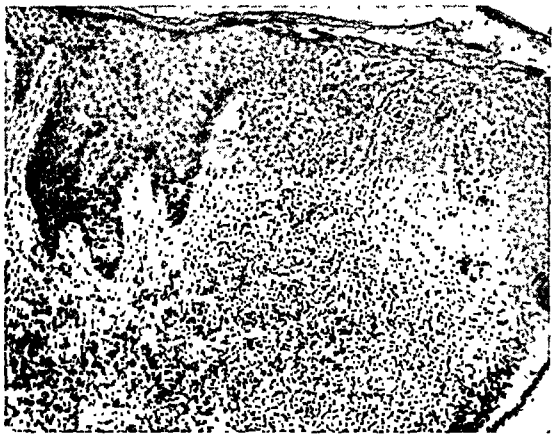


FIG. 4. (Case 2) Cellular infiltration in the cutis, composed of small round cells, wandering connective-tissue cells, polymorphonuclears, some plasma and epithelioid cells. Pautrier's abscess is present in the epidermis. Diagnosis: mycosis fungoides. × 275.

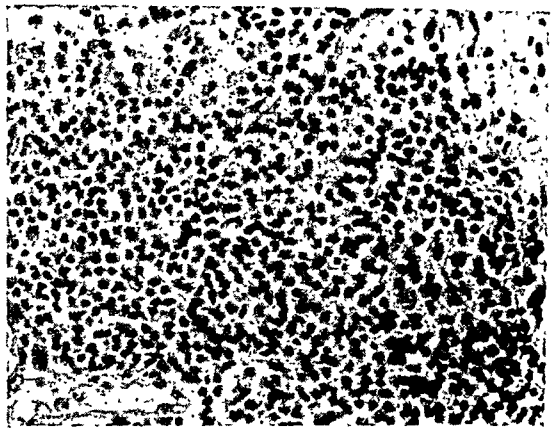


FIG. 5. (Case 2) High magnification of Fig. 4, showing the cytology. × 825.

nothing abnormal. He had some pain in the sacral area which was attributed to a chronic prostatitis.

He received subcutaneous injections of sodium arsenate (2 per cent solution), 5 to 10 minims three times a week. After twelve injections, he apparently became intolerant, so fractional doses of x-rays were again applied to the patch on the right side of the chest. Seborrheic warts present on his back for years were removed by electrodesiccation. He stopped treatment on September 1, 1942. The itching, redness, and scaling had gone from the patch on his right chest, leaving a tanned skin.

He returned on March 8, 1943. The chest lesion still appeared tanned and quiescent. However, new patches were appearing on his trunk and extremities. They were of the same nature as the old brown patches which had been present for about thirty years. The new as well as the old patches now showed a red tinge and felt slightly infiltrated. There was no itching or any other symptom. The axillary and inguinal glands felt smaller.

Sodium arsenate injections were again given, but as there was little improvement, therapy with unfiltered x-rays was now instituted to the affected areas of the body. The lesion on the chest did not require it. Treatment was discontinued June 30, 1943. All the patches on the trunk and extremities had become less conspicuous. The axillary and inguinal glands were barely palpable.

His last visit in March, 1944, showed the complete absence of all spots on his body excepting some pigmentation over the old eczematous area on the right side of his chest.

Blood Counts: Several blood counts taken during 1942, 1943, and 1944 were practically normal with the exception of a slight leukopenia.

Histologic Studies: Lesion on Right Breast (April 26, 1929)—Dr. D. L. Satenstein reported on the histology of the lesion. There was a general interstitial edema of the entire cutis and a parenchymatous edema of the deep cutis. The papillary bodies were quite uniformly swollen (broadened as well as somewhat lengthened). The vessels of the papillary bodies were dilated. The vessels of the subpapillary network were moderately dilated. There was diffuse cellular infiltration in this zone stretching clear across the entire specimen. The vessels of the midcutis were also moderately dilated. The epidermis was somewhat acanthotic in places. In spite of the changes in the papillary bodies, the suprapapillary portion of the epidermis was not relatively thinned. There was some parakeratosis, but for the great part, the granular layer was fairly well retained. Cellular infiltration was redominantly lymphocytic with a few connective-tissue cells present. Giant cells, plasma cells, or epithelioid cells were nowhere suggested. There was some basal-cell edema of the lower portion of the epidermis. There was no increase in fibroblasts. The vessel walls of the mid- and deep cutis were edematous (thickened). The characteristic arrangement of the infiltration, thinning of the suprapapillary portion of the epidermis looked for in the diagnosis of psoriasis, was wanting. The uniformity of the cellular infiltration was against mycosis fungoides. The lack of changes in the deeper cutis and epidermis ruled out chronic eczema. Therefore, parapsoriasis with secondary eczematous changes was suggested.

Lesion on Right Biceps Area (April 26, 1929)—The report was made by the late Dr. D. L. Satenstein, and later concurred in by Dr. W. Sachs. Dr. Sachs' description was as follows: Throughout the subepidermic region, there was a sparse cellular infiltration which was in part diffuse and in part focal. The vessels were slightly dilated. There was some interstitial edema, a little more pronounced in the subepidermic zone. The epidermis showed no change, except in two or three areas where there was edema of the lower portion. There was some disturbance, disorganization, and washing out of the basal cell margin and intercellular edema above it. Over these areas there were a few parakeratotic

cells The cellular infiltration was composed of small round cells and wandering connective-tissue cells The diagnosis was parapsoriasis (See Fig 3)

Biopsy from Lesion on Right Chest (August 6, 1944) —This report was made by the late Dr D L Satenstein and Dr W Sachs Another skin section was taken from the lesion on the right side of the chest The report was as follows Extending from the upper cutis to the epidermis was a tremendous diffuse, cellular infiltration The outlying lymphatic and blood vessels were dilated There was considerable interstitial edema present The overlying epidermis was irregularly acanthotic In some zones, the granular layer was retained and in other zones there was parakeratosis Toward the edge of the section, there were two small cavities within the epidermis containing the same cells as those found in the infiltration (Pautrier's abscess) The cellular infiltration was composed of small round cells, wandering connective-tissue cells, epithelioid cells, some polymorphonuclear leukocytes, and a few plasma cells There was a fine reticulum between the cellular elements There were mitotic figures and some grouping of nuclei Diagnosis mycosis fungoides (See Figs 4 and 5)

Comment Apparently this patient had mycosis fungoides from the start This was suspected in 1927 from the long standing eczematous lesion of the right chest, but it was not confirmed by the late Dr Satenstein, who had examined the first biopsy of the chest lesion in 1929 He believed the histologic picture suggested the presence of parapsoriasis with secondary eczematous changes The biopsy taken fr
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men taken from the right chest in 1929 as a lymphoblastoma Dr Sachs, however, favored the diagnosis of mycosis fungoides Both were of the opinion that the specimen taken from the right arm in 1929 was still parapsoriasis

The brown plaques on the body had the classic appearance of the patch variety of parapsoriasis Histologically this was believed to fit in with that disease Like the eczematous patch on the right chest, finally proved to be mycosis fungoides, the so-called parapsoriasis on the rest of the body responded readily to x-ray therapy Even though no further biopsies were taken, it may be assumed that the pathologic process was mycosis fungoides in all the skin lesions

Summary and Conclusions

Mycosis fungoides may present a bizarre appearance in its various stages

A case is cited in this article in which a leonine facies developed which closely resembled that of nodular leprosy A review of the literature indicated comparatively few cases of this type

Another case is described in which a classic parapsoriasis in patches was present on the body for about thirty years together with an eczematous patch on the right side of the chest The appearance of the latter suggested mycosis fungoides The biopsy, however, failed to confirm this diagnosis and pointed to parapsoriasis, for this lesion as well as other lesions on the body Thirteen years later the clinical diagnosis of mycosis fungoides was confirmed

A favorable prognosis in cases of parapsoriasis in patches should be withheld, because of the possible transformation of such lesions into mycosis fungoides after many years

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853 Seventh Avenue
New York 19, New York

Discussion

Dr Marion B Sulzberger, *New York City*—It is, I believe, recognized that parapsoriasis en plaques does not usually yield to a few small doses of superficial x-ray, while the early lesions of mycosis fungoides do If, in a case which is clinically and histologically typical parapsoriasis en plaques, the lesions melt away under one to four fractional doses of superficial x-ray, this might well indicate that the eruption is mycosis fungoides The questions in my mind are the following

In typical cases, which all will agree to be clinically and microscopically parapsoriasis en plaques, are there not some which will respond well to x-ray therapy and some which will not? Are the former more likely to develop typical mycosis fungoides than are the latter? Must our prognosis in the x ray sensitive group be guarded or bad? May an invariably good prognosis be given in the x-ray-fast group?

These are questions which can be settled only by years and, above all, by administering x ray to all patients with parapsoriasis en plaques, keeping accurate records of the doses and results obtained, and by making arrangements for assembling in a central place all information on all cases of parapsoriasis en plaques which have been seen and treated, so that in the years to come any physician or pathologist encountering a case of mycosis fungoides or other "blastoma" may go to the central place of record and find out whether that particular case was ever diagnosed as parapsoriasis en plaques, and if so whether it was responsive or unresponsive to x-ray

Dr Wilbert Sachs, *New York*—Dr Abramowitz has described two very unusual cases These raise two interesting questions, one from the clinical and the other from the pathologic point of view

The first case is a clinical curiosity We do not

frequently see mycosis fungoides simulating the facies of leprosy. While it has been described, as Dr. Abramowitz stated, it is rare.

Lesions such as those seen in this patient are developing ones and not retrogressing. Pathologically one finds many large cells and at times mitotic figures; breaking up of cellular elements is not a feature of this type of lesion.

As far as the folliculitis is concerned, this is entirely secondary even to the clinical picture. In long-standing, itching eruptions in areas where the follicles are numerous and large, one would expect folliculitis to develop from time to time.

The second case interests me for two reasons. First, the development of mycosis fungoides in other dermatoses; second, the status of parapsoriasis as a dermatologic entity.

From time to time we hear of cases in which a patient had one disease which later turned into another. I do not believe in transformation of diseases. Either the patients have mycosis fungoides from the start or they develop it, irrelevant to the previous dermatosis. We read of psoriasis, seborrheic dermatitis, eczema, parapsoriasis, and perhaps others, lasting for many years, and then developing into mycosis fungoides. This is very understandable when one realizes that the clinical diagnosis depends in no small measure on the state of the epidermis, while the pathologic diagnosis, in the case of mycosis fungoides, depends entirely upon the cutis and its reaction. It is true that the epidermis in mycosis fungoides may be identical with the diseases mentioned, but not so for the cutis—this shows a definite picture from the start.

Therefore, I believe that this patient never had eczema, but mycosis fungoides. But the patient also had parapsoriasis.

I can understand why Dr. Abramowitz feels that the entire picture is that of mycosis fungoides. First, because such a diagnosis is established in this patient and second, because the parapsoriasis lesion as well as the others disappeared with x-ray therapy.

I do not believe that the contention is entirely valid. The pathologic picture was that of parapsoriasis and the clinical picture always remained that of parapsoriasis, while the other lesions showed clinical changes concomitant with the clinical picture of mycosis fungoides.

As far as the pathology of parapsoriasis goes, I believe that there is a definite entity known as parapsoriasis, which starts and remains as such. I also believe that there are many cases of so-called parapsoriasis with the clinical pictures of parapsoriasis which histopathologists cannot differentiate from this disease, but which in reality are mycosis fungoides. Perhaps in time with more knowledge these varieties will become distinguishable at the start, at least pathologically.

PHYSICAL RECONDITIONING HELPS CHEST SURGERY PATIENTS

A well-planned physical reconditioning program, started as soon as possible after the operation, contributes greatly to the success in the management of chest surgery patients, Col. John B. Grow, Maj. Omer M. Raines, and Maj. Ora L. Huddleston, (MC), AUS, declare in the *Journal* of the American Medical Association for December 23. Their report is based on results obtained in an Army hospital which showed that a high percentage of patients participating in the program return to military duty quickly in excellent physical condition.

"One of the major developments in the field of surgery during the present war," the three men say, "has been the general recognition of the value of a reconditioning program. The term 'reconditioning program' is a broad one and covers the care of the patient from the time of his operation until he is physically fit to return to his organization. The goal of this program may be simply stated as the restoration of the patient to a normal physical and mental state of health. . . . To be succcessful this program must be initiated as early in the convalescent period as possible and requires the close cooperation between the surgeon, the physical therapist, the occupational therapist, and the physician in charge of reconditioning. . . . ."

Twenty-two soldiers with chronic nontuberculous empyema (infection of the membranous lining of the lung) completed treatment during the period of the study which lasted twenty-one months. They were transferred to a reconditioning service as soon as they had been without fever for a sufficient period to take part in the program, usually from ten days to two weeks.

"As the patient's condition permits," the authors say, "breathing exercises, calisthenics, and outdoor drills and marches are engaged in. Vigorous physical activity has been found to be of definite benefit in hastening the obliteration of empyema and lung-abscess cavities. The usual experience is that by the time the empyema or lung-abscess cavity has disappeared the patient has been restored to his normal weight, stamina, and strength. . . . ."

Of the 22 patients, 18 were returned to duty and 4 were discharged from the service. Of 31 patients treated by surgical removal of a portion of the lung, 25 were returned to duty with an average of ten weeks of hospitalization following surgery. Their reconditioning program was started with breathing and shoulder exercises in the wards on the seventh postoperative day.

"Unfortunately," the three doctors say, "it is not possible to compare the results obtained before and after the initiation of the reconditioning program at this hospital, owing to the fact that the cases are not comparable and surgical technics have been changed during this period. However, the rapid response of this group of patients to the program, the excellent physical conditioning obtained, and the high percentage of cases returned to military duty have been striking. . . . ."—*A.M.A. News, Dec. 21, 1944*

Therapeutics

CONFERENCES ON THERAPY

THESE are stenographic reports, slightly edited, of conferences by members of the Departments of Pharmacology and of Medicine of Cornell University Medical College and the New York Hospital, with collaboration of other departments and institutions The questions and discussions involve participation by members of the staff of the college and hospital, students, and visitors The next report will appear in the April 1 issue and will concern ' Treatment of Poliomyelitis "

Choice of Sympathomimetic Amines

DR HARRY GOLD The conference today is on the subject of the choice of sympathomimetic amines Chemistry has only a limited place in these conferences, but I think it may help to bring the subject a bit closer to us if we have a look at the chemical structure of the group and the kind of variations that have been brought about in it

I have here an illustration of the structure of seven compounds which will serve to illustrate some of the points (Fig 1)

The skeleton of the group is the substance phenylethylamine, as pointed out by Barger and Dale in 1910 This is compound 1 It has two carbon atoms with an amino group on one and a phenyl group on the other The common drugs of the sympathomimetic series are substitution products of this simple compound

The substitution of a methyl group for one H on the first carbon atom gives rise to compound 2, which behaves differently from the first in several respects The vasopressor action of the new compound now lasts about twice as long, and the material is now rapidly absorbed from the gastrointestinal tract

Now look at compound 3 Here there has been added an OH to the phenyl group of compound 2 Pharmacologically, a great change has taken place Compound 2 has a strong stimulant action on the higher centers of the brain This is almost entirely lost in compound 3, as the result of the addition of the phenolic hydroxyl group Compound 2 is the well-known amphetamine, or benzedrine Compound 3 is paredrine In therapy paredrine is used chiefly for its peripheral actions, and benzedrine frequently for its central actions

When the OH group of paredrine (compound 3) is shifted from the phenyl carbon to the aliphatic carbon, making compound 4, a central action is restored, and the new drug, known as propadrine, acts in a manner similar to ephedrine, although it is stated to be somewhat less active on the centers than ephedrine

The substitution of a CH_3 group on the N of propadrine gives rise to one of the best-known members of the series, namely, ephedrine (compound 5) Pharmacologically, the resulting change is not great in this case, the vasopressor action of propadrine is somewhat greater and the central action somewhat less than for ephedrine There is indeed a question whether these two compounds are not interchangeable from the therapeutic standpoint

Now we come to another variation, seen in compound 6 It differs from ephedrine in that the methyl group on the first carbon is no longer there, and there is the catechol nucleus, namely, the benzene ring with the two OH groups This is the first member of the sympathomimetic group discovered, namely, epinephrine

Extraordinary pharmacologic changes take place if the OH group in the para position is removed This compound, 7, must be given in five times the dosage of epinephrine to produce the same rise in blood pressure The new drug rarely causes the ectopic cardiac rhythms seen after epinephrine therapy When raising the blood pressure, it slows the heart, while epinephrine accelerates it Its tendency to cause anxiety symptoms is much less than that of epinephrine This compound is neosynephrine

The order in which I have presented these few illustrations of the relation between chemical structure and action is for the purpose of simplicity only, and bears no relation to either their historical development or the manner in which the chemist deals with these materials in the synthesis of the particular compounds

In a few instances it is now possible, from the structure of the compound, to predict its behavior However, there are strict limitations to prediction because of the complexities of the pharmacologic change as the result of some of the chemical changes I have already referred to the introduction of a CH_3 group on the position of the first carbon atom By this change a two-carbon chain is converted into a three-carbon

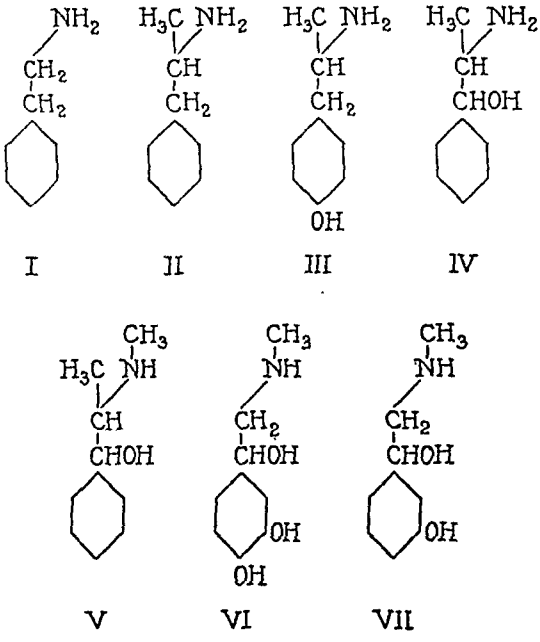


FIG. 1.

chain and the amino group is now on the second carbon rather than on the first carbon. Compounds of this character are well absorbed after oral administration. This applies to ephedrine, benzedrine, paredrine, and others. Compounds without this CH_3 group, such as epinephrine and neosynephrine, are not well absorbed when given orally. This difference is said to be due to the fact that deaminization, by which these compounds are detoxified, is accomplished with greater difficulty if the amino group is on the second carbon atom rather than on the first. This may not be the whole story, since there may be other ways in which these compounds are detoxified.

It is hard to know where to draw the line in the discussion of sympathomimetic compounds today. There are so many of them. Perhaps we should confine our remarks to those which are in most common use here, namely, epinephrine, ephedrine, amphetamine, neosynephrine, propadrine and paredrine. These materials are all put into the sympathomimetic group for the reason that they possess somewhat similar peripheral actions, actions which simulate those of the sympathetic or adrenergic nerves. Thus, they constrict some vessels (skin) and relax others (coronary). While they act on the smooth muscle of some vessels to cause constriction, they relax the smooth muscle of the bronchus and, under certain conditions, of the uterus. They tend to accelerate the heart and dilate the pupils.

Too much emphasis, however, must not be placed upon their similarities, and it is the pharmacologic differences which are of the greatest importance from the standpoint of therapy. The differences which are usually pointed out refer to central actions. Epinephrine and ephedrine cause anxiety and nervousness. With benzedrine in appropriately small doses, it is possible to obtain a different quality of central stimulation with more favorable alterations in the mood and the affect. Paredrine is almost devoid of central actions. However, I think one should point out that these compounds show important differences in the pattern of their peripheral actions as well. For example, epinephrine causes marked constriction of the vessels of the skin and produces pallor, while paredrine seems to cause no constriction of the vessels of the skin and this compound does not cause pallor. This difference in their action on the skin vessels makes epinephrine useful to delay the absorption of procaine for local anesthesia, while paredrine is of no value for this purpose. A comparison of neosynephrine and epinephrine gives another striking example of differences in the peripheral actions. You will recall that, from the chemical standpoint, neosynephrine differs from epinephrine only in the absence of the OH group in the para position. The results of a subcutaneous dose of the two compounds are so different that one is at a loss to see anything which they have in common. A subcutaneous injection of 1 mg. of epinephrine produces only a slight increase in systolic pressure, often a fall in diastolic pressure, increase in heart rate, increased cardiac output, and decreased circulation time. On the other hand, a subcutaneous injection of 5 mg. of neosynephrine causes a fairly marked rise of the blood pressure, slowing of the heart rate, decrease of the cardiac output, and may slightly prolong circulation time. Clearly, epinephrine places a burden on the heart with little rise of the systemic pressure, while neosynephrine may raise the blood pressure significantly without imposing a burden on the heart. An intramuscular injection of 10 mg. of paredrine may also raise the blood pressure by as much as 50 mm. and slow the heart rather than accelerate it.

The term "sympathomimetic" seems to have lost a good deal of its meaning as applied to the group of derivatives of phenylethylamine which have been synthesized.

Just a few words about the practical selection of members of this group in therapy: To what extent are they interchangeable, and which ones are best suited for the various purposes?

They all shrink mucous membranes when applied directly to them. The question of their

local irritant action in the nose and throat has received some attention Solutions of epinephrine are unstable and the sodium bisulfite preservative tends to be irritant Neosynephrine is relatively stable in alkaline solutions and may be sterilized by boiling There is the fact that epinephrine causes a secondary local vasodilatation, and is said on that account to be less desirable than some of the other members I am not certain that we have good evidence concerning the comparative actions of the various compounds in producing secondary disturbances in the nose and throat from protracted use The fact that these drugs tend to impair ciliary action in the respiratory passages has been used as a basis of comparison, but again I know of no satisfactory studies which establish one as preferable to another from this standpoint It takes about twenty times as much ephedrine as neosynephrine to produce the same rise of blood pressure, but for topical application to the nasal mucous membrane one usually recommends only four times as much ephedrine for the same effect (0 25 per cent solution of neosynephrine and 1 0 per cent solution of ephedrine) What is the meaning of this? When we observe differences in the results with these two solutions are we comparing strictly comparable concentrations? It is, of course, possible that ratios of potency which apply to their vasopressor actions do not apply to their action in constricting the blood vessels of mucous membranes by local application It is my impression that we are badly in need of some good experiments comparing the relative efficacy of the different members of the sympathomimetic group by local application to mucous membranes There is, of course, the point that paredrine and neosynephrine fail to produce central disturbances from the fraction which is absorbed, whereas ephedrine not infrequently gives rise to nervousness even after its local application Central nervous system stimulation is also sometimes seen with the use of the benzedrine inhaler Perhaps we may have some statement of preferences from rhinolaryngologists who may be here today

In regard to the field of allergy, especially for such conditions as bronchial asthma and angioneurotic edema, the contributions of the newer synthetic compounds seem to be relatively little The severe attack of bronchial asthma or angioneurotic edema or anaphylaxis still requires the dose of epinephrine Ephedrine provides some help in some of the milder cases Paredrine is of practically no value for this purpose

I wonder why that is? The attack of bronchial asthma is supposed to be due chiefly to the swelling of the bronchial mucous membranes and its relief by epinephrine presumably due chiefly to the shrinkage of the mucous membranes Yet the other members of the group which produce intense local constriction of mucous membranes seem to be of relatively slight effect in the case of bronchial asthma

DR MCKEEN CATTELL I am inclined to think that the antiallergic action of epinephrine is a specific property of the structure of epinephrine which may not be revealed in its pharmacodynamic action of either constricting vessels or relaxing bronchospasm

DR GOLD The new compounds have added a good deal to the therapy of certain kinds of circulatory disturbances There are many states in which vasomotor tone is seriously lowered This occurs in some stages of barbiturate poisoning It is seen in spinal anesthesia, in which the blood pressure frequently falls to as low as 75 mm of mercury It sometimes occurs in some phases of severe infection These are not true cases of shock There is need for an effective vasoconstrictor The action of epinephrine is too brief, too uncertain, and too disturbing The central stimulation by ephedrine is also a source of annoyance Paredrine and neosynephrine provide distinct improvements in the drugs available for raising the blood pressure by vasoconstriction

The central stimulant actions of amphetamine are also of considerable importance Its effect in allaying fatigue, reversing the depression by alcohol and barbiturates, and its role in the treatment of narcolepsy are some of the examples Here is a drug developed from the sympathomimetic group whose major contribution to therapy comes from its action on the higher centers rather than from any strictly sympathomimetic actions

DR CATTELL It would be worth while if we could have some statements from the different specialties in regard to the particular preparations which are employed, and if possible have the reason why Dr Kelley, you represent rhinolaryngology Will you say a few words?

DR SAMUEL F KELLEY I have used to some extent all the preparations mentioned here I have employed each drug sufficiently to obtain some impression as to the respective characteristic effects produced The therapeutic effect of a vasoconstrictor amine on the nasal mucous membrane is to provide ventilation and drainage of the nasal passages and sinuses and effect prompt relief from disagreeable symptoms The choice of such an agent is determined by its rapidity of action, duration of action, the nature and the duration of the aftereffects The ideal drug is one which develops its action rapidly, which has a prolonged vasoconstrictor effect and

a minimum of aftereffects. A number of factors, such as anatomic deformities, pathology, fatigue of the patient, tone of the vasomotor reflex, method of administration, and atmospheric conditions, result in individual variations in the effects of these agents.

Since any one of these drugs produces the desired vasoconstriction within two to fifteen minutes, the more important attributes which distinguish one from another are those of sustained action with a minimum of irritation and nasal aftercongestion.

I will take up epinephrine first. This drug is rapid in action, has a short period of action, and is characterized by various degrees of sneezing, watery nasal discharge, tearing of the eyes, and prolonged reaction. This reaction may persist from a few hours to a day or more. Shortly after leaving the office the patient may call the physician, complaining that the treatment has produced a severe head cold. A 1:100 solution of epinephrine is employed as a nasal and laryngeal spray for relaxing the bronchial musculature in certain cases of bronchial asthma. For local anesthesia about four to eight drops of 1:1,000 solution to the ounce of procaine is employed satisfactorily for nasal operations. A similar amount is employed in 5 to 10 per cent solution of cocaine for surface anesthesia. Caution is to be observed in its use, especially in the hypertensive or aged patient.

I used ephedrine extensively several years ago, but I seldom use it now, since the more recent amines have come into vogue. The immediate aftereffects and duration of reaction are less pronounced than for epinephrine. Its vasopressor effects and duration of action compare favorably with those of neosynephrine. It may be used in the form of a solution, or in oil as a spray, or as drops. When there is considerable discharge with swelling of the membrane occluding the ostia of the sinuses, the solution used as a spray or drops may prove more effectual than the inhalant because of a more general contact with the membranes. I do find that if ephedrine is used for a week or more the patient may complain of nervousness, restlessness, and perhaps insomnia. Some develop a local sensitivity to ephedrine. The nose becomes irritated, and the mucous membrane is blotched with small red and dry excoriations, especially on the anterior part of the inferior turbinate and in the dependent areas. By repeated applications more of the agent comes in contact with, and is retained longer in these dependent areas, and consequently there is a more prolonged vasoconstriction and irritating effect, which results in pathologic changes in the mucous membranes. Oral preparations are used with some measure of relief in cases of pollen asthma with nasal irritation and congestion.

I used benzedrine for a short time only. Its action is rapid, of relatively short duration, and the aftereffects of irritation and nasal congestion are rather marked and of prolonged duration. For this reason the patient may resort to frequent administration of the drug with short periods of relief and persistent irritation. This is a characteristic in various degree of all vasoconstrictors, and limitation of application should be insisted upon regardless of the amine used. If the nasal passages are not completely blocked the benzedrine inhaler may be conveniently employed after retiring at night or carried in the pocket for use when desired. The inhaler produces the same aftereffects as the drops or spray.

Paredrine solution is comparable in its local effect and after-reaction to that of benzedrine. I do not use it alone. I am using paredrine-sulfathiazole suspension in selected cases of nasal and sinus infections. Its action is rapid, sustained for two or three hours generally, and perhaps has some bacteriostatic effect. The reaction is less pronounced than for paredrine solution. I can offer no satisfactory explanation for this difference in effect, unless it is because it has a pH of 5.5 to 6.5, producing less hyperemia and irritation of the membranes. Being in the form of a suspension, it adheres to the membranes longer than the solution. I have restricted its home use in every case to not longer than three days in order to avoid nasal sensitivity to sulfathiazole. Directions are given to instill three to five drops in each nostril not oftener than every three hours and not more than four times in twenty-four hours. Since an important function of the nose is to expel foreign matter, bactericidal and bacteriostatic solutions are eliminated too rapidly to be of much value. The suspension can be visualized in the nose and pharynx for an hour or more following its application.

There are a number of aqueous solutions containing ephedrine and one of the sulfonamides. The same precautions should be taken in the use of these solutions to prevent developing sensitivity.

I used propadrine perhaps long enough to discover that its action and reaction were similar to that of benzedrine and paredrine.

Finally, I may say a few words about neosynephrine. While neosynephrine is by no means an ideal vasoconstrictor, I prefer its use in most cases to that of the other amines mentioned. It is employed as a spray, drops, and occasionally in the office by tampons. Its desired effect occurs within from two to fifteen minutes, and its action is sustained for two hours

or more. Fewer complaints of aftereffects, such as burning and nasal congestion, are made. In chronic conditions it may be used once or twice daily over a period of weeks with less tendency to develop local sensitivity. However, it isn't free of unpleasant effects. Neosynephrine may occasionally cause very disagreeable aftereffects upon its first application. On the other hand, more often it may be used for a considerable period without any complaint, and then suddenly cause irritation and nasal congestion to such a degree that it becomes necessary to discontinue its use.

If the drug is used frequently or indiscriminately over a protracted period, either a tissue tolerance may develop in which the vasoconstrictor response is weaker or more fleeting, or the contrary a chronic congestion or sensitivity may result.

In a case with chronic nasal congestion giving a history of extended use of a nasal spray or nose drops without evidence of an active sinusitis or other cause, one may suspect local sensitivity to the drug. Instructing the patient to discontinue all nasal medication may help solve the problem. In order to avoid prolonged and unnecessary treatment of the nose, and the consequences of these drugs, I write *"non repetatur"* on all such prescriptions. The patient is instructed to discontinue its use as soon as relief has been attained.

For mild acute nasal congestion, neosynephrine is used in a fine DeVilbiss spray. The atomizer is first primed by one compression of the bulb, and then four additional compressions are made, directing the spray at different angles with each compression. In this manner a more general distribution is made on the surface of nasal mucous membranes. If the ostia of the sinuses are occluded by swelling and discharge, drops prove more satisfactory when employed by the method of gravitation. The patient is instructed to recline on the back with the head hyperextended over the edge of a bed or couch. About eight drops (for the adult), or one-fourth of a standard medicine dropperful, of the neosynephrine is instilled into each nostril. The head must be so extended as to avoid an overflow into the nasopharynx. The patient is instructed to lie in this position for two minutes, and then sit up flexing the head and body forward for another minute. To remain five minutes or longer with the head hyperextended is very uncomfortable, seems to increase the congestion of the nasal membranes in some instances, and is rarely necessary.

Local reactions and aftereffects are still a source of disturbance in the case of the vasoconstrictors of the nasal mucous membranes, which are at present available. There is need for one with a minimum of these effects.

DR. GOLD: Dr. Kelley, is there any difference in the concentration of the solutions of various compounds which you use? Is it a 1 per cent solution of one drug or 0.5 per cent of another? Or just what do you do?

DR. KELLEY: I use 0.25 per cent neosynephrine solution. This is apparently an optimum concentration to obtain the desired and sustained action with a minimum of aftereffect and reaction. An increase in concentration above 0.25 per cent does not seem to increase the effectiveness of the drug. It is possible that the vasoconstrictor mechanism of the nasal mucosa has been stimulated to its maximum and a stronger solution fails to produce further vasoconstriction but increases the irritation. When the vasoconstrictor action has been spent the irritation from the higher concentration is more intense than that of the 0.25 per cent solution, resulting in more pronounced and prolonged nasal congestion.

DR. GOLD: In the case of ephedrine is it 1 per cent?

DR. KELLEY: No; 0.5 per cent of the aqueous solution, and 1 per cent in oil, not stronger. It is always best to use the weakest solution that will produce satisfactory vasoconstriction in order to reduce to a minimum the aftereffect and nasal congestion.

DR. CATTELL: I think we need to go on to some of the other fields. Dr. McLean, is there anything from the standpoint of the use of these agents in the eye?

DR. JOHN MCLEAN: There is not very much to be said. Most of the drugs of this group have been used in ophthalmology. They are used topically and principally for two purposes, for superficial vasoconstriction, and for mydriasis. It is commonly thought that epinephrine produces no mydriasis, and in the usual strength in the normal eye that is correct, but in greater concentrations in the normal eye, when introduced topically, it does produce mydriasis.

I have no personal experience with propadrine hydrochloride. I have had some with the others. They have all been used for the same purpose. For example, one uses ephedrine sulfate in 4 or 5 per cent solution for simple mydriasis without cycloplegia. Neosynephrine is used in 0.25 to 0.5 per cent solution for the same result. It comes on somewhat faster. It goes without saying that mydriasis without cycloplegia is in many instances quite important.

There is one other point which should be mentioned. It creeps into the literature and creeps further into commercial advertising. It is alleged that all, or almost all of these drugs are

synergistic with the atropine group in producing cycloplegia. I do not believe there is any sound evidence to that effect, and there are now very careful experiments which support my view. Proper controls in the experiments demonstrate there is no synergistic effect in cycloplegia, but only a summative effect of the two drugs in the mydriasis which goes with it. There is the erroneous conclusion that because the pupil is opened wider and more rapidly, therefore cycloplegia will be more complete

Statements have been made that a combination of one of these amines and a cycloplegic not only gives effective cycloplegia for refraction, but also wears off more rapidly than the cycloplegic used alone. The experiments on which this statement is based are misleading. For example, one dose of homatropine plus one dose of paredrine or benzedrine were compared with a course of six doses of homatropine. If the single dose of homatropine is used either with or without the alleged synergist, the cycloplegic effect and the recovery time are the same. In either instance, the recovery time is shorter than with the six doses of homatropine.

Neosynephrine is a popular one of the group now, not so much because of any special pharmacologic properties as because of the convenient way it is put up commercially, and the wider range of solutions which are available.

Dr. Gold: You haven't noticed any difference in local irritant actions in the eye after ephedrine, neosynephrine, paredrine, and benzedrine?

Dr. McLean: Not appreciably.

Dr. Cattell: Are you not using neosynephrine in much lower concentration than ephedrine? You mentioned that point.

Dr. McLean: Ephedrine is not used any more because its action is slower and it requires stronger solution. If you use these drugs in physiologically equivalent strengths you get about the same results.

Mr. Donald Clarke: Might I ask what the purpose of the 10 per cent neosynephrine is?

Dr. McLean: The 10 per cent neosynephrine solution applied locally in the eye is a very strong pupillary dilator by muscle stimulation, yet it is very readily overcome by the ordinary miotics. We use the 10 per cent neosynephrine in two specific types of cases. In one group are those in which strong mechanical obstruction is to be overcome, for example, an iritis with an adhesion between the iris and lens which we would like to break forcibly by nonsurgical means. The other application is as a preparatory drug in certain types of ocular operations in which it is important to get maximal dilatation of the pupil during the operation and prompt miosis afterwards.

Dr. Gold: Would you say that these needs are met by neosynephrine, but not by the others? I am still trying to find out whether there are any important differences between the compounds.

Dr. McLean: No. It probably can be done adequately with the others, but we haven't readily available strengths of the others comparable to 10 per cent neosynephrine. One can do just about the same thing with about 2 per cent epinephrine, which is considerably stronger than the ordinary epinephrine which is available. Neosynephrine is just more conveniently supplied.

Dr. Cattell: Dr. Foot, would you say something about the use of these compounds in anesthesia?

Dr. Ellen B. Foot: Of these drugs the one which the anesthetist uses the most is ephedrine, that being the most commonly known and an easily available drug for maintaining blood pressure during spinal anesthesia. It has, however, many disadvantages, and many of us are using paredrine and neosynephrine in preference to ephedrine to maintain the blood pressure for spinal anesthesia.

There are two kinds of central stimulation as opposed to peripheral stimulation which is seen with these drugs. That probably is not a strictly correct way of saying it, but expresses the clinical picture well. When ephedrine is given to a patient with spinal anesthesia, who has a vasomotor block from the fifth thoracic segment on down, the chief reason that ephedrine is given is to elevate the blood pressure through increasing the cardiac output. Its peripheral effect is necessarily limited to the arms, neck, and head. In other words, it is largely increase in the work of the heart which elevates the patient's blood pressure and restores the circulation. That is perfectly all right in an individual who may be regarded as a good risk, but in a patient with a poor myocardium the result may not be an increase in cardiac output but instead cardiac failure and an even worse situation than the original. The increased cardiac output is what I call central circulatory stimulation as opposed to the effect on the periphery of the vascular system. The second type of central effect is stimulation of the medullary vasomotor centers.

Dr. Gold: Perhaps one ought to state that you base your statement that the vasopressor action of ephedrine is largely the result of cardiac stimulation, on the evidence presented by Starr and his collaborators, to the effect that a dose of ephedrine which increases the blood pressure decreases the effective peripheral resistance. This would indicate that vasoconstriction is not an important factor in the blood pressure rise. We may also assume that when you speak of the

peripheral constriction being limited to the arms, the neck, and the head in a patient under spinal anesthesia in whom there is vasomotor block from the fifth thoracic segment down, you accept the view that ephedrine vasoconstriction is not a direct action on the muscle cells, but results indirectly from its blocking an enzyme which inactivates epinephrine. In such a case, the anesthetic block of the vasomotor control becomes in effect a kind of denervation of the corresponding blood vessels which would accordingly show little constriction with ephedrine.

DR. FOOT: With paredrine and neosynephrine one characteristically gets an unchanged pulse or a bradycardia, and there is much less possibility of having an untoward arrhythmia or decompensation. The pressor effect is a very gratifying one from a practical standpoint. I prefer paredrine to neosynephrine because of its longer duration. A patient under continuous spinal anesthesia for a period of two or three hours may require neosynephrine in small doses every fifteen or twenty minutes. Each successive dose is just as effective as the previous one, but the patient, aware of getting so many hypodermic injections, begins to think that maybe he is not as well as he ought to be, and he is aroused repeatedly from his sedation, which might otherwise allow him to drowse throughout the operation. The effect of paredrine, on the other hand, lasts satisfactorily from one to three hours after a single dose.

The doses which I have found effective are from 3 to 5 mg. of neosynephrine. That seems to be ample to restore blood pressure depressed by spinal anesthesia, and is also sufficient as a prophylactic dose prior to the administration of the spinal anesthetic drug. With paredrine the dose range is 5 to 8 mg. for both prophylactic and therapeutic use for controlling the hypotension of spinal anesthesia. The dose of ephedrine is of the order of 50 mg. but a prophylactic dose of 35 mg. is often adequate.

We have used benzedrine as a pressor drug in connection with spinal anesthesia, but because of the central nervous system stimulation it is unsatisfactory. The patients become too wide awake and the preanesthetic sedation is counteracted so that although the blood pressure is well maintained, the patient is too aware of the operating-room activities to be entirely happy.

STUDENT: Do you ever use paredrine for elevating the blood pressure when it goes down during or after the operation under pentothal anesthesia?

DR. FOOT: With the intravenous barbiturates we find benzedrine very useful in bringing about a prompt return of orientation. The typical patient recovering from pentothal anesthesia usually wakens as from a quiet sleep, and comes to a full realization of where he is and what is going on; but an occasional patient will wake up in a state of inebriation. He is uncooperative and is disoriented as to time, place, and person. Benzedrine is dramatically effective in removing this type of recovery reaction. In a patient who has had pentothal for the application of traction to a fractured extremity, for example, it is quite important to have the patient cooperative as soon as he recovers and not to have him toss around in bed or try to get up and walk across the ward. Prompt orientation on awakening is also important when pentothal is used for air encephalography, so that patients can cooperate for the taking of x-ray pictures after the air encephalogram is complete.

DR. MCLEAN: By what route do you give benzedrine?

DR. FOOT: The intravenous route. In adults 10 mg. is often enough. If not effective within ten minutes, the dose can be repeated intravenously without any ill effect. There may be a mild blood-pressure rise, so that in the markedly hypertensive patient I would advise giving the second dose intramuscularly or subcutaneously. A few anesthetists have tried giving benzedrine by mouth prior to pentothal anesthesia with the idea that it takes twenty to thirty minutes for the benzedrine to be absorbed, so that just about the time the patient needs to be wakened he will be absorbing the benzedrine. That does not work at all. It is more apt to make it necessary to give the patient a larger total dose of pentothal, with the end result of an even longer recovery period. We do not as a rule need any pressor drugs in connection with the intravenous barbiturate anesthesia. It is very rare to see any blood pressure depression with pentothal anesthesia unless massive doses are given rapidly. Ordinarily the blood pressure is maintained at the preoperative level or rises slightly because of shallow ventilation and CO_2 retention.

STUDENT: How do you give paredrine in the case of intravenous pentothal, or don't you use it?

DR. FOOT: It is not useful for pentothal anesthesia as paredrine does not have the cerebral effect of benzedrine.

SAME STUDENT: During operation is it ever desirable to raise the blood pressure without central effects, and in that case would you use paredrine rather than benzedrine?

DR. FOOT: That is the case during spinal anesthesia. With inhalation anesthesia it is more rational to treat hypotension with fluids, blood, or plasma, instead of with pressor drugs. The patient with surgical shock has already failed to profit from his own physiologic attempts at compensation by vasoconstriction and increased cardiac output. Giving a pressor drug un-

der such circumstances is said to constitute "whipping a tired horse." The only justifiable reason for using pressor drugs in this situation is that they may increase peripheral circulation for a brief period and facilitate finding veins suitable for vensipuncture and the administration of blood and plama.

One word of caution, and that is that epinephrine and some of the anesthetic agents are incompatible, in that ventricular fibrillation can occur very readily when there is a relatively large amount of circulating epinephrine during cyclopropane, chloroform, or ethyl-chloride anesthesia. Therefore, patients who are scheduled for operation under local anesthesia, who may require a supplement, and in whom the supplement will probably be cyclopropane, chloroform, or ethyl chloride, should not receive procaine or cocaine solution to which epinephrine has been added.

DR. CATTELL: There is one important subject, I am sorry to say, we did not get to, and that is the question of the use of these substances by the psychiatrists. I don't see anyone from that department here.

STUDENT: I would like to ask Dr. Gold this question: For a patient who has just had a sympathectomy, whose blood pressure prior to operation was 200/120, which after operation goes to 90/60 as the result of loss of vasomotor tone, what drug would you use and approximately how much?

DR. GOLD: Paredrine or neosynephrine would be preferable to any of the others we discussed because central stimulation is either absent or negligible. An intramuscular dose of 5 mg. of neosynephrine or 10 mg. of paredrine should suffice. The paredrine is often effective in 20 to 40-mg. doses given by mouth. The effects come on in about ten minutes or less. The doses may be repeated as necessary or increased if necessary.

Benzedrine has been used for the treatment of a condition involving an essentially similar problem, namely, orthostatic hypotension. Here the stimulant action on the higher centers is sometimes found to be desirable, although wakefulness may be a drawback. There is some successful experience with paredrine in orthostatic hypotension. It failed to produce the psychic lift. Rather large doses were used orally, as high as 400 mg. a day.

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He used them prophylactically on the operating table prior to the section of the sympathetic chain. Moderate doses of paredrine and neosynephrine were very effective.

Summary

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They are all effective vasoconstrictors when applied locally to the mucous membranes of the nose in from 0.25 to 1.0 per cent solutions. Preference was expressed for neosynephrine although local irritation and chronic congestion resulting from their prolonged use is a source of disturbance in the case of all of them. While these drugs are frequently used in combination with sulfathiazole in the form of nasal drops, it should be mentioned that the practice is not without danger because of the possibility of sensitization to the sulfa-drug, which may preclude its subsequent use for conditions in which it may be essential.

Epinephrine is still the drug of choice in the severe attack of bronchial asthma or angioneurotic edema.

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MEDICAL WRITING

One would not suspect from reading current medical literature that the field of medical writing has, at least in the past, contained some of the best craftsmen the English language has had Perhaps the highest peak to which the use of classical English has attained was reached by Sir Thomas Browne There has been a serious, lamentable decline since then Medical men can still write on nonmedical subjects—Maugham, Cronin, Céline, Munthe, Osler, Cushing, and, before them, Weir Mitchell and Holmes, for a few But when they take up a medical topic, they forget such splendid traditions and even the simple rules and meanings they learned in school

Some of those writing today can still be read without shuddering, but few, with the exception of some English writers, are read with the same pleasure that Peabody, Allbutt, Fitz, Janeway, and Thayer of the generation just past and a considerable body of men before them command A guide to medical writing is pertinent and such a handbook, *Medical Writing*, by James H Dempster, should do a good deal to elevate the present low state of grammar and construction, if not of vocabulary —if it is read

Certainly, if medical men go to the trouble (how many of them really do?) of putting findings on paper with the presumable purpose of having others read them, they should consider it worth while to use language and sentence structure which are not only intelligible but are at the same time at least not unpleasant or uncomfortable for the reader It takes real genius to abuse the English language

[illegible]

ence, and most articles published make an attempt to appear so, at least the innumerable charts, graphs, and formulas are probably meant to convey that impression (upon close scrutiny most of them fail to produce any impression other than one of confusion and bewilderment) Scientific medical writing should be clear and convey meaning—and writing on the art of medicine could even be entertaining

To point out all the weaknesses in present medical writing would require a compilation almost as extensive as Mencken's on the American language The most glaring examples are those which have to do with qualifications of "positive," "negative, and "normal," "essentially normal," "essentially positive or negative" Besides the lack of meaning of "essentially," can you really modify absolutes? Granted that there are no absolutes, then why use the terms at all? The whole subject of modifiers needs searching discussion And the complete lack of [illegible]'t there any otl There is a sor n, which is usually not medical and not quite always English

Case reports are particularly badly handled They are really simple narratives, but most of them read like blank verse by T S Eliot It is a pleasure to read some of the case records of Bright, Addison, Corrigan, Sydenham, and Graves And I venture the opinion that there is as much scientifically valuable content in the writings of Thomas Lewis, Mackenzie, Cushing, and A F Hurst as in any medical writing extant, and yet how easily and simply and pleasurably it is read

Semantics has been recently rediscovered by Stuart Chase It is, by definition, the study of the changes in the meaning of words in the way of special[illegible] is amplified by Korzyb[illegible]e accurate use of wor[illegible]rents Stuart Chase [illegible] analyzes the use of words as symbols The exercise is very entertaining Most language, as it is spoken and written, is just "blab", whereas, with proper study of referents and reference it should actually convey ideas exactly and accurately from one person to another What is meant by democracy, fascism, capitalism, economics, money? What is meant by immunity, allergy, myocarditis, nephrosis, gastritis? The rule seems to be *what*, *when*, and *where* with regard to a [illegible] tion Do two [illegible] al-ways mea[illegible] Well then, wh[illegible] implicit that the meaning in each case is clear Everyone knows that diplomatic language employs ambiguity to hide meaning, but surely one medical man communicating his thought to others need not follow the devious circumlocutions of statecraft The most accurate language of all is mathematical, [illegible]atters of human rela-[illegible]s mathematical terms, [illegible]at is at all clear in the [illegible] should be capable of expression in understandable symbols

All of which means that present-day medical writing is generally done in a very sloppy manner It is stereotyped as to use of words, abounding in clichés, tautologies, and inaccurate modifiers There is no style to it, whereas there is no reason why there should not be The meanings are often obscure, in many cases, because of muddy thinking to begin with and carelessness in denoting by context or direct statement the referents for the word symbols used

After all, there is too much medical writing, as indeed there is a plethora of all writing, but one [illegible] published by Bruce, is recommended as an aid to better writing And a reading of Stuart Chase might lead to an avoidance of glib and meaningless generalities —*James B Carey, in Bulletin, Hennepin County Medical Society*

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One would not suspect from reading current medical literature that the field of medical writing has, at least in the [illegible] subjects—Mayo, Cronin, Céline, Munthe, Osler, Cushing, and, before them, Weir Mitchell and Holmes, for a few. But when they take up a medical topic, they forget such splendid traditions and even the simple rules and meanings they learned in school.

Some of those writing today can still be read without shuddering; but few, with the exception of some English writers, are read with the same pleasure that Peabody, Allbutt, Fitz, Janeway, and Thayer of the generation just past and a considerable body of men before them command. A guide to medical [illegible] such a handb[illegible]pster, should state of grammar and construction, if not of vocabulary—if it is read.

Certainly, if medical men go to the trouble (how many of them really do?) of putting findings on paper with the presumable purpose of having others read them, they should consider it worth while to use language and sentence structure which are not only intelligible but are at the same time at least not unpleasant or uncomfortable for the reader. It takes real genius to abuse the English language. There are no Faulkners, Hemingways, and Dos Passos' at present [illegible] journals—even h cavalier [illegible]part a science, and most articles published make an attempt to appear so; at least the innumerable charts, graphs, and formulas are probably meant to convey that impression (upon close scrutiny most of them fail to produce any impression other than one of confusion and bewilderment). Scientific medical writing should be clear and convey meaning—and writing on the art of medicine could even be entertaining.

To point out all the weaknesses in present medical writing would require a compilation almost as extensive as Mencken's on the American language. The most glaring examples are those which have to do with qualifications of "positive," "negative," and "normal," "essentially normal," "essentially positive or negative." Besides the lack of meaning of "essentially," can you really modify absolutes? Granted that there are no absolutes, then why use the terms at all? The whole subject of modifiers needs searching discussion. And the complete lack of originality in modifying words! Aren't there any other English words besides "marked"? There is a sort of medical English being written, which is usually not medical and not quite always English.

Case reports are particularly badly handled. They are really simple narratives, but most of them read like blank verse by T. S. Eliot. It is a pleasure to read some of the case records of Bright, Addison, Corrigan, Sydenham, and Graves. And I venture the opinion that there is as much scientifically valuable content in the writings of Thomas Lewis, Mackenzie, Cushing, and A. F. Hurst as in any medical writing extant, and yet how easily and simply and pleasurably it is read.

Semantics has been recently rediscovered by Stuart Chase. It is, by definition, the study of the changes in the meaning of words in the way of specialization or generalization; or, as amplified by Korzybski, Ogden, and Richards, the accurate use of words with regard to their referents. Stuart Chase ("The Tyranny of Words") analyzes the use of words as symbols. The exercise is very entertaining. Most language, as it is spoken and written, is just "blab"; whereas, with proper study of referents and reference it should actually convey ideas exactly and accurately from one person to another. What is meant by democracy, fascism, capitalism, economics, money? What is meant by immunity, allergy, myocarditis, nephrosis, gastritis? The rule seems to be *what*, *when*, and *where* with regard to any generality like truth, or inflammation. Do two individuals writing about metabolism always mean the same *thing*? Manifestly not! Well then, why cannot the referents be so explicit or implicit that the meaning in each case is clear. Everyone knows that diplomatic language employs ambiguity to hide meaning; but surely one medical man communicating his thought to others need not follow the devious circumlocutions of statecraft. The most accurate language of all is mathematical; and, unfortunately, few matters of human relationship can be reduced to mathematical terms, but any thought or idea that is at all clear in the mind of the author thereof should be capable of expression in understandable symbols.

All of which means that present-day medical writing is generally done in a very sloppy manner. It is stereotyped as to use of words, abounding in clichés, tautologies, and inaccurate modifiers. There is no style to it, whereas there is no reason why there should not [illegible] are often obscure, in many case[illegible] to begin with and [illegible] context or direct statement the [illegible] word symbols used.

After all, there is too much medical writing, as indeed there is a plethora of all writing; but one [illegible] to make a contribution to the overburdened litera[illegible] The last [illegible] Democr[illegible] as an aid to better writing. And a reading of Stuart Chase might lead to an avoidance of glib and meaningless generalities.—*James B. Carey, in Bulletin, [illegible] County Medical*

[illegible] published by Bruce, [illegible]

Special Article

THE PLACE OF THE MEDICAL PRACTITIONER IN THE SELECTIVE SERVICE SYSTEM

JOHN A. P. MILLET, M.D., New York City

(Chairman, Emergency Committee of Neuropsychiatric Societies of New York City, and Director, The Lake George Foundation, Diamond Point, New York)

THE successful operation of the Selective Service System and the induction stations presupposes the readiness of the civilian medical practitioner to volunteer his services as medical examiner, or to respond to the call of the county society in the event that a shortage of medical examiners threatens the effective operation of the induction process. This fact signifies that the medical profession is an integral part of our system of national mobilization to meet the emergency. While the response of the civilian practitioners to this added responsibility has been enthusiastic and whole-hearted, it has not everywhere been accompanied by a thorough understanding of wherein their greatest usefulness lies.

As medical examiner to the local boards, as a member of a Medical Advisory Board, or as one of the specialists serving at the induction stations, the civilian practitioner has the opportunity to participate directly in the program of national mobilization, and in one or more of these roles a large majority of the civilian profession has found, in addition to this opportunity for service, deep satisfaction in a new field of experience.

There are, however, other aspects of a physician's contribution which are becoming of increasing importance as the period of active induction draws toward its close and the number of rejectees and discharged soldiers rises toward an eventual maximum.

One highly significant aspect of every physician's role in relation to Selective Service is that of interpreting to the draftee, to his family, and to the community the responsibility of the individual for service and the reasons for possible rejection. In carrying this role of interpreter of Selective Service requirements, the medical practitioner, through his personal and civic contacts, has an unique opportunity for aiding in the maintenance of civilian morale. Such a role has always been associated with the medical profession in peacetime, and should now be emphasized as one of its greatest opportunities on the home front.

No matter what role he may play with respect to an individual candidate, he has always the opportunity and responsibility for building up morale and for dissipating anxiety, whether that anxiety be due to possible acceptance, or to possible rejection. Unusual anxiety in either direction, or preoccupation with the results of any single phase of the examination may be regarded as presumptive evidence of emotional instability, and should be noted for the benefit of the neuropsychiatric examiner.

The importance of the neuropsychiatric phase of the examination at the induction center cannot be too strongly stressed. There is often a tendency among physicians to discount such complaints as "nervousness" or "indigestion," or such evidences of dangerous instability as overindulgence in alcohol, irresponsibility in employment, and repeated brushes with the law. Too often are heard such comments as "The Army will make a man of him," or "Let him try pulling that stuff when he is in the Navy." While it is doubtless true that in some instances adventurous individuals who have come into conflict with a law-abiding community in peacetime may make excellent soldiers, it is equally true that similar conduct may indicate deviation from the norm of sufficient gravity to render a candidate most undesirable in the role of soldier.

In determining physical norms there is far less difficulty for the practitioner than in establishing mental norms. It is certainly obvious that if hearing is seriously impaired the defect can be measured and evaluated from the standpoint of suitability for Army service. The question of how the deafness came about is of secondary importance. With neuropsychiatric problems, on the other hand, barring clear signs of organic nervous disease, the history behind the symptom is of as great importance as the symptom itself, and frequently gives the best clue to its importance. Only specialists who are trained to such careful history-taking, and who from long experience can put their fingers quickly on significant evidences of mental illness or emotional instability should be entrusted with these difficult evaluations.

There is no possible doubt that the chance of overlooking a poor neuropsychiatric risk is

greater than that of overlooking a poor physical risk

In the time at the disposal of the neuro psychiatric examiner it is not possible for him to secure all the evidence which he needs to feel sure about doubtful cases On the other hand, if he has had a rich clinical experience, he will undoubtedly spot many bad risks which would escape the notice of less skilled observers, or which would have been passed up as eccentrics, or as being 'hopped on themselves" and therefore good subjects for 'having all that nonsense knocked out of them "

Furthermore, not only is it easier to determine and evaluate physical pathology than psychopathology, but, once the candidate has been accepted, and is being run through the mill, physical overstrain will be more readily recognized and more correctly evaluated than emotional or nervous strain, or than certain evidences of psychopathic personality which may cause all kinds of trouble to everyone later Training is so intensive in many instances that physical weakness soon leads to physical breakdown Mental illness or a latent susceptibility to mental and nervous breakdowns, however, may well elude observation once the wheels of the training mill are set in motion It is true that many neuropsychiatric misfits are weeded out prior to the six months' limit after which they can claim service-connected disability, and that many nervous breakdowns or psychosomatic illnesses appear during the first week after induction It is unfortunately true, however, that just as latent instability may elude detection by others, so it may not be fully appreciated by the individual himself until he is near the breaking point Thus may come during the first week or month of his service, or may not appear until he is on a transport, or undergoing preinvasion training, or, finally, is engaged in active combat

If a selectee is rejected at the induction station for neuropsychiatric reasons, or is discharged after a brief term of service, he frequently is placed in a most embarrassing situation at home He cannot give any satisfactory explanation He may be believed to be a malingerer, or to have shirked his duty, or else to be a "nut," and may find difficulty in securing employment or re-establishing "face" Sufferers from "nerves' who look perfectly healthy rarely are sympathetically regarded by their neighbors, and even by their own family physicians

If we consider, on the other hand, the lot of the man rejected or discharged for physical infirmities, while he may be relieved or disappointed as the case may be, he does not have to hang his head nor give some vague explanation He can describe his disability without embarrassment, and receive the sympathy of his neighbors and their help in getting himself re-established

The general practitioner has always been regarded as something more than a healer Like the minister, the lawyer, or the sheriff, he is expected to be one of the leaders in the community and it is to his everlasting credit that with rare exceptions he takes particular pride in the confidence which his community places in him In these critical years his opportunities and his responsibilities are greater than ever before There is hardly a family in the country whose lives and fortunes are not in some way threatened or changed by the course of the war Those families which have to face the problem of a father, son, or husband returning with some degree of disability, whether it be great or small, physical or emotional, will need more than ever the technical skill and the enlightened sympathy of their family physician Already the quantity of discharged men has reached beyond the million and a half mark Of these, some 44 per cent have been discharged as neuropsychiatric casualties For the reasons above stated it is likely that the families of these men will be more bewildered by their situation than is the case of those of men with medical discharges in other categories It is imperative, therefore, that every general practitioner acquaint himself with the problems which these men have to face, and with the attitudes that need to be built up among the members of their families There have, unfortunately been a number of regrettable and misinformed magazine articles which have only served to increase the misunderstanding and prejudices in regard to the situation Furthermore, the earlier use of such technical medical diagnoses as "Psychoneurosis" in connection with certificates of discharge has tended to increase the anxiety of the neuropsychiatric dischargee, to confuse and frighten his family, and to prejudice potential employers against him

Here, then, is one type of situation in which the family physician can exercise a new and important function, that of sustaining the morale of rejected selectees or dischargees, and of educating their communities to the understanding that unsuitability for military service does not necessarily indicate unfitness for civilian life, nor any strange abnormality of make-up

Fortunately, in contrast to some badly conceived and widely publicized statements in the lay press and magazines, there is now a growing literature on the subject which emanates from reputable professional sources The National Committee for Mental Hygiene and the New York State Committee for Mental Hygiene can supply a suitable reading list for physicians who wish to become better acquainted with the

problems involved. There is, however, another aspect of the physician's relation to his community which should be given further emphasis. As physician to a draft board he naturally will be interested in those veterans whose fitness for induction was first determined by his own examination. It will now be his privilege, and should be felt as his responsibility, to see to it that upon his return with a medical disability each man be given whatever medical care is indicated.

There will be many doubts in the minds of the veterans and of their families as to the suitability of medical or surgical care that has been given or that is being recommended. These doubts are likely to be particularly disturbing in the field of neuropsychiatric disabilities. Some of these patients will need hospitalization, but will resist the idea with violence. Their resistance may be bolstered up by the refusal of their families to accept the situation. Others will crave the protection of a Veterans Administration Hospital, when their greater need is to be helped to a successful readjustment in the community. It will take a great deal of tact, wisdom, and skill to see all these men through to the best possible finish. Where there are inadequate local facilities for the outpatient type of neuropsychiatric care the physicians in the community should arouse the leading citizens to an awareness of the problem, and sponsor the formation of a citizens' committee to establish a mental hygiene clinic. When there are not sufficient funds in the community to make this possible the leading physicians should organize themselves into an advisory group for the purpose of making the best possible use of whatever professional resources are available. Whatever may be the problem in any given community, the New York State Committee for Mental Hygiene stands ready to offer advice and suggestions, and to assist in a local educational campaign.

Many men discharged with neuropsychiatric disabilities have experienced no difficulty in civilian life because there has been sufficient freedom of movement and choice to allow them to find a niche wherein their sensitivities are not handicaps, or sometimes may even be assets, and wherein they may function effectively. These have included such sensitivities as inability to work in high places, inability to function in crowds, or alone, or in closed places, maladjustments to authority, tendencies to unusual forms of sex expression, a tendency to cruelty, or its reverse, the inability to kill anything, or even to handle a gun. Some of these conditions are detectable in advance and can be dealt with during the process of selection. Some of them, such as fear of heights and gun-shyness, can be trained out of the person if they are not too deeply ingrained. With some persons, however, these sensitivities persist as distinct handicaps and necessitate discharge.

These subclinical handicaps to military service are generally not known or detectable by the community, or even the Selective Service Board. But when a man is rejected by the induction board or discharged from the Army for such cause, he is apt to be surrounded by suspicion—suspicion of malingering, or of having political influence. When such a man returns home with the diagnosis of psychoneurosis, he may meet prejudice on the part of the community and industry that sometimes prevents his serving to the fullest extent as a part of our manpower, and as a result may become lost to the war effort as well as to himself. A circular issued some time ago by a toolmaking industry calling for men to train as toolmakers, specifically excepted those discharged for psychoneurosis, although in such work many psychoneurotics could function superbly. Recently a psychiatric clinic in St. Louis made a special effort to place in a machine shop one such man discharged from the Army. He proved to be the best of the fifty men employed, with the result that this clinic has since been called upon by his shop to recommend other candidates.

Such an experience both proves the moral and adorns the tale which this article aims to relate. To make it possible for such a demonstration to become the rule rather than the exception requires widespread understanding of the whole problem on the part of the medical profession, who will then be in a position to re-educate prospective employers and the general public with respect to the needs and rights of the draftee or dischargee who is returned to his community for some neuropsychiatric reason.

Without the assistance of this better understanding these men may continue to find themselves embarrassed and resentful on their return to their own communities. They may continue to have one disappointment after another in seeking re-employment; and in many instances the conflicts thus engendered may end in antisocial attitudes and acts, or in escape into the backwaters of neurosis and chronic invalidism. Here, indeed, is a challenge which every medical man should be proud to accept as a further contribution to the war effort and to the cause of science and humanity.

The process of screening has been greatly improved by the addition of medical field agents to the local draft boards, and by the wider use of neuropsychiatrists attached to the Medical Advisory Boards, as well as by the recent directive in relation to the use of approved psychologic tests. Full credit should be given to the officers

in charge of the Induction Center at the Grand Central Palace for their initiative and for their cooperative attitude toward those of their civilian colleagues who have been active in the development of these tests and in urging other improvements in screening procedures From the outset, Col Samuel J Kopetzky (Medical Director of Selective Service for New York City) has shown the keenest interest in these matters, and has initiated or sponsored many projects that have led to these improvements

While the screening technic in New York City is therefore now a model for other large communities, there still remains the problem of a shortage of neuropsychiatrists in the rural or semirural districts Where no experienced neuropsychiatrists are available their functions are frequently exercised by young men in the State Service, or by less skillful men who are glad to be able to earn the regular, if modest, stipend paid by the Army for their services Such a state of affairs in many instances has resulted in complete failure of the procedures designed to eliminate neuropsychiatric risks from the Service, and highlights the paucity of well-trained neuropsychiatrists in the less densely populated areas

At the Neuropsychiatric Clinic operated in Glens Falls by the Lake George Foundation one young man came in at the suggestion of his family physician because he was badly alarmed at the wording on his rejection slip "Psychoneurosis, severe, irremediable" While he had no idea what the term psychoneurosis meant, he knew very well what the adjectives implied This young man had apparently been rejected because an inexperienced neuropsychiatric examiner had decided that he must be very neurotic, since he had admitted hesitation to marry his girl-friend prior to induction, on the ground that he already had the sole responsibility for supporting his mother Since he was not neurotic, though quite sensitive, he accepted the reassurance given at the clinic with relief, and subsequently found employment which was sufficiently remunerative to enable him to marry Here was an example of prompt action on the home front which forestalled a possible serious break in individual morale

It is hard to determine what would be the best term to use in classifying neuropsychiatric discharges, or in the endorsement of such papers as might have to be presented to the general public We may confidently expect that the abandonment of technical medical diagnoses on discharge certificates and the substitution of less frightening terms will eliminate at least one obstacle in the path of the veteran's readjustment

The medical profession cannot be taken to task for its failure to do good screening Its members have cooperated enthusiastically with the Selective Service System Shortage in neuropsychiatric personnel and slowness of recognition by the authorities of the importance of neuropsychiatric disabilities have been responsible for much suffering that might have been avoided These mistakes have now been remedied so far as it is humanly possible to do so Furthermore, the present enlightened policies of the armed services in regard to attempting a readjustment of men with more or less serious nervous reactions within the framework of army or navy life, rather than discharging them immediately to civilian life, should go far in reducing the number and variety of neuropsychiatric discharges Much of the credit for these new policies belongs to the Surgeon General, Maj Gen Norman T Kirk, and to his Chief Neuropsychiatric Consultant, Col William C Menninger, who, in addition to his unceasing efforts to improve the treatment of neuropsychiatric cases in the Army, never loses an opportunity of reminding the civilian physician of his responsibility toward the disabled veteran and his family

As physicians, then, we must take up this challenge Probably the most important service that the civilian neuropsychiatrist can give at this time is educational Owing to the very recent recognition of the need for proper teaching, in the medical schools, of clinical psychiatry and psychosomatic medicine, there are few practitioners of medicine above the age of 45 who have the benefit of medical education as to the significance of these fields of inquiry in the evaluation and treatment of human functional disorders The influence of the great eras of Virchow and Pasteur still dominates our middle-aged medical thought and leaves little freedom for the understanding and acceptance of basically new viewpoints Furthermore, the busy practitioner must needs stick to what he already knows and has little time to weigh the values of these new disciplines, nor to read the voluminous literature in which observations and theoretic constructions pertinent to them are recorded The younger members of the profession, who have been fully exposed to these new scientific data while still in medical school, are for the most part in uniform, so that we must depend on a handful of well-trained specialists to make known to their fellow practitioners in civilian life such parts of these new concepts, at least, as have an important bearing on the process of selecting men whose stability will be assured in the face of any but the most extravagant type of danger, and on the nature of the problems which they may present if discharged as neuropsychiatric casualties

The Emergency Committee of Neuropsychiatric Societies of New York has for some time

devoted much of its energies to this purpose. One article written for the Committee by Dr. Earl H. Adams[1] attempted to outline for the benefit of the general practitioner the principal points to look out for in the detection of emotional instability or functional nervous disorders.

Another pamphlet on the returning veteran written by Dr. Emeline P. Hayward, in collaboration with me,[2] is shortly to go to press under the sponsorship of the New York State Committee for Mental Hygiene. The Committee has also collaborated with the Federal Council of Churches in the preparation of material for all those who may be called upon to give advice and counsel to the returning veteran.[3]

There is no excuse in these days for ignorance of these topics. To acquire what knowledge is available does not require a vast amount of reading. The problem for the medical practitioner is rather that he be prepared to meet his responsibility. It is a regrettable fact that New York State is the only state in the union in which no provision has been made in the program of the State Bureau of Rehabilitation for the inclusion of neuropsychiatric casualties among those veterans entitled to state aid in their rehabilitation. This strange omission calls for the wholehearted support of the medical profession in calling for an enabling act of the Legislature which would set up such services under the aegis of the State Department of Mental Hygiene or the State Board of Social Welfare. The State Department of Education under which the Bureau of Rehabilitation functions has no personnel or experience which would qualify it for the effective administration of such a program.

Finally, we come to the problem of the overlapping functions and enthusiasms of the various organizations which are attempting to help the veteran in his readjustment. Someone recently described the situation in these words: "It looks to me as though it was getting to be a scramble for the customer." The physician who has been in close touch with the workings of the Selective Service System, and who is properly informed as to the resources in his community, can save "the customer" and his family a lot of unnecessary heartaches. He can become the one person best fitted to light the veteran through the darkness and confusion of his period of readjustment. Many of those whose powers of adjustment have been temporarily shattered are having real problems in accepting what opportunities there are. Others are able to get along because the employment situation is still favorable, and because they want to forget their troubles rather than to seek aid in their solution. What will happen to many of these men when the employment situation becomes less favorable, and the period of obligation toward them on the part of employers is no longer in effect, is still imponderable, but that there will be serious problems and disabling anxieties for many is certain.

The specter of unemployment may soon be hovering above the social horizon. Lessons learned from successes, failures, and problems in the mobilization of our manpower for war may offer some valuable guideposts in effecting a successful redistribution of this same manpower in the peacetime community. The principle of selection according to fitness for the job should play a leading part in overall planning to meet this staggering situation, and the physician must be prepared to use his experience, knowledge, and influence in promoting an understanding of the problem among his clientele and in the community at large.

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VIRUS DISEASE FROM PIGEONS MAY BE A CAUSE OF SPORADIC ATYPICAL PNEUMONIA

In view of the high percentage of pigeons in the United States infected with ornithosis, a disease similar to psittacosis which is contracted from psittacine birds, such as parrots, and since countless individuals are daily exposed to this potential reservoir of infection, it is probable that the virus of ornithosis may be responsible for many sporadic cases of primary atypical pneumonia which pass unrecognized, three physicians declare in the *Journal* of the American Medical Association for December 23.

Lt. David C. Levinson, (MC), AUS, Lt. John Gibbs, (MC), AUS, and Joseph T. Beardwood, Jr, M.D., of Philadelphia, report 6 sporadic cases of ornithosis the diagnosis of which was confirmed by laboratory tests. A history of direct contact with pigeons was obtained in 2 cases and in the others there was daily exposure to pigeons in the immediate vicinity of the homes. They point out that it is known that infection may occur through the inhalation of the infected excreta of pigeons blown about as dust.

Six of fourteen pigeons captured in Philadelphia were found to have positive tests for ornithosis.—*A.M.A. News, Dec. 15, 1944*

A MILD CASE OF TETANUS—CASE REPORT

ALAN R ANDERSON, M D , and GEORGE A NEWTON, M D , Freeport, New York

TETANUS ordinarily is a disease characterized by severe symptoms and a high mortality rate According to authorities reporting on a large number of patients, this rate in treated cases may be anywhere from 27 to 60 per cent It has been noted[1] that a short incubation period (up to six days) without prophylaxis may lead to a disease having a mortality of 90 per cent, if, however, the incubation period is over ten days, a lower mortality of about 50 per cent may be expected

To our knowledge it is not generally appreciated that tetanus can be a mild disease, and can present difficulties in diagnosis because of this mildness Especially in the prodromal stages, regardless of whether the succeeding disease is mild or severe, a number of diagnoses may be entertained before the physician arrives at the correct one of tetanus There may be pain and spasm in the muscles of the face and neck, and those of deglutition, there may be pain on swallowing without objective signs of a sore throat, there may be pain in the back with a mild degree of stiffness simulating myositis or one of the rheumatic diseases According to one authority, about 2 per cent of the cases are treated by extraction of a tooth or palliatively for disease of the nose and throat Actually, a few cases of tetanus have been subjected to an abdominal operation because of the tremendous rigidity of the abdominal muscles!

Case Report

We are reporting a case of tetanus seen in the summer of 1943 in a farmer of 70, because of (1) the difficulty of convincing ourselves that it really was a case of tetanus, (2) the mildness of the course of the disease, (3) *the absence of a history of injury* and (4) the thought that other physicians in rural communities might encounter cases of similar mildness

H B, a farmer of 70, came to the office of one of us on the evening of July 14, 1943, complaining of a stiff neck which had been present for three days He gave no history of injury did not have a fever, showed considerable spasm of the neck muscles, was told he had a stiff neck, and was advised to use heat at home for relief On July 17, he
ton
the
cause of the continued stiff neck and rigidity of the spinal and abdominal muscles, it was felt that a lumbar puncture should be made On this day he was walking about the room, holding himself very rigid, and when forced
considerable difficulty
position The spinal
mal pressure, and no increase in the cellular content
From July 19 to 22 there was no improvement If anything, the rigidity of the neck and back muscles increased, and because of stiffness of the jaws it become more difficult to feed him The diagnosis of tetanus had been seriously considered by both of us, certainly as early as July 17, when he first complained of difficulty in swallowing But the general good condition of the patient, the absence of any history of injury, and the absence of frank convulsive seizures persuaded us to ascribe his symptoms to some type of myositis involving chiefly the back and neck muscles One of us, on July 19 or 20, talked the problem over with a well-known neurologist, and he expressed the opinion that a man who had had tetanus for ten days would more than likely be dead! Despite this opinion, we were forced to conclude in the next few days that the patient really did have tetanus No myositis could be so persistent or involve so many groups of muscles

He was admitted to Meadowbrook Hospital on July 22 The blood pressure was 130/80, the temperature was recorded as 101 5 F on the day of admission 101 F on July 23, and normal thereafter *The pulse was recorded as high as 90,* but more often 75 to 80 The respirations were from 22 on admission to 20 on discharge, and at times were recorded as 25 During the first few days at the hospital, he had for the first time slight tonic contractures of the entire back when an attempt was made to move him in bed He was given 20,000 units of tetanus antitoxin on the first day, and 10 000 a day for five days Seconal, from 3 to 6 grains a day, was used as a sedative The laboratory reports were as follows Urine—acid, 1 018 specific gravity, no albumin no glucose, hemoglobin—84 per cent, white blood cells, 9 550—76 per cent neutrophiles, 24 per cent lymphocytes There was some difficulty in swallowing for a few days, but at no time
sary His convalesc
was discharged on A
little of the stiffness in his back and neck muscles, but this soon disappeared

Comment

In years past tetanus was classed as traumatic or idiopathic, today all cases of tetanus are considered to be traumatic in origin even though a source of entry cannot be found Among other portals for the tetanus bacillus, Williams and McClure[1] mention insect bites, vaccinations, extraction of teeth, trauma caused by picking the nose, burns, frostbite, subungual hematoma, hypodermic injections, sutures of catgut, in other words, any one of a number of insignificant traumatic lesions could be the portal of entry Our farmer, H B, had daily contact with the proper soil to grow tetanus, and he developed the disease at the peak of the season—July, but there was never any way of deciding the time or the place the bacilli entered his body

The question may be raised as to whether the administration of 70,000 units of antitoxin eleven days after the onset of stiffness of the neck muscles had any curative effect Perhaps not, if we accept the dictum of Shumacker, Firor, and Lamont[2] that antitoxin has no therapeutic effect once a lethal amount of toxin has been fixed by body tissues, and the period of incubation of fixation has passed

However, therapy in practice is not ordinarily influenced by side-chain theories and we did the usual thing of following the diagnosis of tetanus by the administration of antitoxin.

The main interest in the case as far as we were concerned was the one of differential diagnosis. Only after following the progress of this patient from day to day and reading the literature did it become clear that a case of tetanus could on occasion resemble closely an ordinary stiff neck.

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ARMY'S NEW PLASTIC EYE

A new plastic eye is being made by the Army which is lighter and more durable than glass, can be tinted to duplicate the appearance of the natural eye, and fitted to provide as much mobility as possible, thereby avoiding the appearance of staring.

First step in making the eye is to paint the "iris"—a thin celluloid disk, only one-ten-thousandth of an inch thick. The "iris" is then embedded in a tiny plastic lens of acralain—a plastic that has been used in dentistry for the last ten years. The impression of the patient's eye socket is made with a new type compound, an alignate plastic, that is chemo-setting. This, mixed with water to make a paste, is injected with a syringe under the eye-lid at body temperature without causing pain or discomfort. It sets to a rubber-like consistency in five minutes and is removed painlessly, giving a permanent record of every tissue contour within the socket. A plaster cast is then made from this replica and used to mold a wax model of the eye-ball. The iris button is fitted into the wax and the whole unit is then fitted to the patient. The body temperature melts the wax slightly to produce an even better fit.

A second cast is then made from this wax replica and the wax is melted away and the cavity filled with acrylic resin, tinted the shade of the patient's natural eye-ball. This is baked for an hour under a half ton of pressure. When it comes from the cast it has on its front surface the tiny disk of the iris.

It is then polished and the "veins" are applied—tiny rayon fibers, an innovation by Capt. Don Cash, of Beaumont General Hospital, El Paso, Texas. As a final step, the whole eye is dipped in a clear plastic solution which produces a gleaming coating similar to the layer of liquid covering the natural eye. This plastic eye is so durable it can be dropped on the floor and stepped on without injury.

Credit for developing the eye goes to three dental officers: Capt. Stanley F. Erpf, Maj. Milton S. Wirtz, and Maj. Victor H. Dietz, who were working independently before they were brought together at Valley Forge General Hospital to found the artificial eye laboratory. Technicians are now being trained within thirty days to make these eyes.—*Release from the Office of the Surgeon General, Dec. 30, 1944*

THE 4-F'S AMONG MILITARY GENIUSES

With all our present-day emphasis on physical fitness, it is well to remember that, through the workings of the ineffable law of compensation, genius has been found most generally among the 4-F's. While this is no reason for cultivating malaise, or for abandoning our programs of rehabilitation, it should give us pause to consider that there may be estimable values other than big muscles and rosy cheeks.

Even in the field of military service, where 4-F's are about as plentiful as meat dealers at a vegetarians' convention, the physically handicapped has, historically, carved out quite a record for himself.

Witness the following list of military and naval geniuses cited recently by Dr. Logan Clendening in his volume, *The State of the Nation's Health.* As Dr. Clendening suggests, "a great many of the world's greatest officers would have been rejected by the draft boards":

Name	*Reason for Rejection*
George Washington	False Teeth
Bismark	Overweight
Napoleon	Ulcer of the Stomach
U. S. Grant	Alcoholism
Julius Caesar	Epilepsy
Horatio Nelson	One Eye, One Arm
Kaiser Wilhelm	Withered Arm
Genghis Khan	Paranoia
Duke of Wellington	Underweight

—*N. Y. Medicine, Jan. 5, 1945*

FOREIGN BODY IN THE ABDOMEN INTRODUCED THROUGH THE VAGINAL ROUTE—CASE REPORT

A LESTER WEISBERG, M D , BRONX, New York

(Assistant visiting surgeon, Morrisania City Hospital, assistant adjunct visiting surgeon, Bronx Hospital)

A WOMAN was admitted to the surgical service of the Morrisania City Hospital on November 28, 1943 * To the admitting physician she told a story of having fallen in the hospital four days ago while visiting her child Since then she had had pain in the abdomen, particularly on the right lower side On examination, the admitting physician found tenderness, some rigidity, and rebound tenderness

[illegible] operature of
[illegible] itive to a
[illegible] tentative
[illegible] of chronic
[illegible] ne history
[illegible] omen and

pelvis Much to his amazement, the x rays revealed the presence of a length of rubber catheter completely within the abdomen, up to the level of the upper border of the third lumbar vertebra

History —Confronted with the evidence of the x-rays, she finally gave the following history She was 27 [illegible] of age Her periods very twenty-eight d e she became 15 years of age Having had no period since the birth of her youngest child, five months ago, she had an Ascheim-Zondek test done, which was positive, two weeks previous to admission One week after, she had a rubber catheter inserted into the uterus by a midwife, and was told the catheter would fall out in several days However, the catheter did not appear, and for the past four or five days she had been having pains in the right lower quadrant of the abdomen She stained only for two days, and passed no clots nor any products of conception The story of having fallen in the hospital was a pure figment of her imagination, for she was ashamed to admit the episode with the midwife

Physical

a young,
woman, not

The heart and lungs were normal, pulse rate was 120, regular, and of good quality, and the blood pressure was 110/60 The temperature was 103 8 F , the urine was normal, and the blood count was 16,000 white cells with 88 per cent polymorphonuclears, and 3,170,000 red cells Abdominal examination revealed marked tenderness, moderate rigidity and rebound tenderness over the right lower quadrant, and some tenderness over the left lower quadrant Bimanual examination revealed a uterus only slightly enlarged, and considerable tenderness in the right fornix Visualization of the cervix did not reveal any foreign body protruding through the cervical canal, nor was there any evidence of perforation of any of the fornices The diagnosis was made of perforation of the uterus by a catheter, with localized abscess, and of the presence of the catheter in the abdominal cavity She was operated upon the same day after having received 500 cc of blood

Upon opening the peritoneal cavity through a right rectus incision, a small amount of turbid fluid appeared, but much to my chagrin, no catheter was visible or palpable The fimbriated end of the tube, markedly thickened, was overlying the right broad ligament, and covered by a plastic exudate The uterine end of the tube was normal The uterus was soft and only slightly enlarged No perforation was visible The thickened end of the tube was gently freed from the underlying broad ligament, and there, barely perceptible, was a small perforation of that ligament With slight pressure of each hand on either side of the perforation, there appeared through it the lower end of the catheter This was grasped with a forceps and removed Apparently the catheter had coiled itself up between the layers of the broad ligament Ten Gm of sulfanilamide was placed in the abdomen, and two cigarette drains were inserted, one over the site of the thickened tube and perforated ligament, and the other in the pelvis The tube was not resected nor was any exploration done The abdomen was closed in layers

Postoperative Course —On the first postoperative day, the temperature came down to 101 F The red count that day was 4,010,000 red cells and 56 per cent hemoglobin She was given another transfusion of 500 cc of blood On the second postoperative day, her temperature rose to 103 8 F , which may have been caused by a transfusion reaction However, sulfadiazine therapy was instituted at this stage, 2 Gm immediately and 1 Gm every four hours thereafter Her temperature came down to normal within thirty six hours, where it remained until December 8 and 9, when it ranged between 102 and 103 F The abdomen then was soft, there was no distention, no tenderness or spasticity Rectal examination revealed no evidence of a pelvic abscess However, after expressing about one dram of purulent material from the site of the emergence of the drains, the temperature promptly returned to normal, where it remained until her discharge from the hospital on December 12, the fourteenth postoperative day The abdominal incision healed by primary union Since her discharge from the hospital, she has had regular, normal periods

Had x-rays not been taken in this case, revealing the presence of a rubber catheter, it is very likely [illegible] ny, the diagnos[illegible] ave been made [illegible] have remained [illegible] gament, undiscovered

* From the surgical service of Dr George E Milam

PUBLIC VS TB

The battle against tuberculosis is not a doctor's affair, it belongs to the entire public —*Sir William Osler, in Tuberculosis Clip Sheet, Oct , 1944*

TUBERCULOSIS IN THE AGED

There has been a gradual and noticeable increase in morbidity of tuberculosis in the aged —*Arthur Rest, M D , Am Rev Tuberc , Mar , 1942*

Postgraduate Medical Education

Programs arranged by the Council Committee on Public Health and Education of the Medical Society of the State of New York are published in this section of the JOURNAL. *The members of the committee are Oliver W. H. Mitchell, M.D., Chairman (428 Greenwood Place, Syracuse); George Baehr, M.D., and Charles D. Post, M.D.*

Diseases of the Skin

POSTGRADUATE instruction was held before the Broome County Medical Society on February 13, at 8:30 P.M., in the auditorium, Binghamton City Hospital, Binghamton.

Dr. Leon H. Griggs, associate professor of clinical medicine (dermatology and syphilology) at the Syracuse University College of Medicine, delivered a lecture entitled "Common Diseases of the Skin."

The lecture was illustrated with color photography.

Two Lectures for Tompkins County

POSTGRADUATE education has been arranged for the Tompkins County Medical Society, to be given Tuesday evenings at 8:30 P.M. at the Nurses' Home, Tompkins County Memorial Hospital, Ithaca.

One lecture took place on February 20. It was "Penicillin Therapy," by Dr. Howard B. Slavin, assistant professor of medicine and bacteriology, University of Rochester School of Medicine and Dentistry. On March 20 Dr. Barton F. Hauenstein, assistant professor of medicine at the University of Buffalo School of Medicine, will speak on "The Present and Postwar Importance of Malaria, Filariasis, and the Dysenteries."

This instruction is provided by the Medical Society of the State of New York with the cooperation of the New York State Department of Health.

Injuries of the Extremities

THE Cortland County Medical Society will meet on March 16 at 8:30 P.M. at the Cortland County Hospital, Cortland, for postgraduate instruction.

Dr. P. K. Menzies, professor of clinical surgery at the Syracuse University College of Medicine, will discuss "The Treatment of Injuries to the Hands and Feet."

This instruction is provided by the Medical Society of the State of New York with the cooperation of the New York State Department of Health.

General Medical Lectures in Saranac Lake

THE Saranac Lake Medical Society met on January 31 at 8:00 P.M. in the John Black Room, Saranac Laboratory, Saranac Lake, for a lecture entitled "Management of the Failing Heart," given by Dr. Harry Gold.

Dr. Gold is assistant professor of pharmacology, department of pharmacology, Cornell University Medical College, New York City.

On March 28, at 8:00 P.M., the society will meet again at the same place. A lecture, "Cancer of the Oral Cavity," will be given by Dr. Hayes Martin, assistant professor of clinical surgery at Cornell University Medical College, New York City.

The latter lecture will be presented by the Medical Society of the State of New York with the cooperation of the New York State Department of Health.

Hematology

POSTGRADUATE instruction was given before the St. Lawrence County Medical Society on February 8 at 12:15 P.M. at the Arlington Inn, Potsdam.

Dr. Ellery G. Allen, associate professor of clinical medicine and assistant professor of clinical pathology at the Syracuse University College of Medicine, was the speaker.

He gave a lecture entitled "General Résumé of Hematologic Disorders Including the Anemias."

Jefferson County Series

TWO lectures have been arranged for the Jefferson County Medical Society, for Thursday evenings at 6:00 P.M. at the Black River Valley Club, Watertown. The first, which was given February 8, was "General Résumé of Hematological Disorders Including the Anemias," by Dr. Ellery G. Allen, of the Syracuse University College of Medicine.

The second will be given on March 8. It is "The Treatment of Pneumonia," by Dr. Russell L. Cecil, professor of clinical medicine at Cornell University Medical College, New York City.

The instruction on pneumonia is provided by the Medical Society of the State of New York with the cooperation of the New York State Department of Health.

Medical Legislation

Bulletin No. 2 issued by the Legislative Bureau of the Medical Society of the State of New York, January 20, 1945.

THE L[illegible] many bills a[illegible] im- possible [illegible] time to make [illegible] in- formatio[illegible] beg your indulgence and omit any special comments on these bills.

The chiropractic bill (*Senate Int. 94—Scelye; Assembly Int. 98—*[illegible] mittee in both [illegible] is possibility of [illegible] some indications that the chiropractors feel confident that they have sufficient votes to pass this bill at the present time. It is extremely important that all who can, contact, write, or communicate with the legislators from their districts urging that this bill be kept in committee until the latter part of February or early March if possible. It is important, also, that as many responsible persons of the community be urged to write a letter to the legislators against this bill as can be persuaded to do so.

Our purpose in defeating this bill is to protect the public from incompetency in the practice of medicine. If the chiropractors met the educational requirements laid down for the practice of medicine and passed a proper examination, there would be no objection against the chiropractors, or practitioners from any other school of medicine, obtaining licensure for the practice of medicine.

Many of the legislators are thoroughly exasperated with this fight which has come up year after year. They consider it a controversial issue and have been impressed by arguments that some control should be placed on the chiropractors, as they are practicing every day in the year in the State and the courts have not been successful in eliminating this practice. One of the other arguments produced, also, is that as there are about forty states which now license chiropractors, the chiropractors that are unsuccessful in obtaining admission to [illegible] can practice [illegible] at New York [illegible] -actic quacks who are not able to obtain licensure in other states. No evidence has been produced that there has been a recent influx of chiropractors to New York State. The main question, however, remains that the practice of chiropractice is the practice of medicine. They should be required to have a thorough basic knowledge of medicine in order to make proper diagnosis as a protection to the patients they propose to treat, and without thorough scientific training in this [illegible] our progress along these lines. May we urge you again to use your influence among members of your community to bring immediate pressure on their legislators?

We are sending you at this time the list of Senate Committees with which we usually work.

New Bills Introduced

Senate Int. 132—Parisi; Assembly Int. 149—Crews, requires payment of workmen's compensation for partial disability due to silicosis or other dust diseases, or diseases resulting from metallic gases or industrial chemical processes or allergic diseases; increases the aggregate to total compensation from $5,000 to $10,000 for temporary total and from $6,500 to $10,000 for permanent total disability or death; minimum weekly compensation is increased from $8.00 to $20 and maximum from $25 to $35. Referred to the Labor Committees.

Senate Int. 212—Novod, requires the administration of blood transfusions for persons in immediate need in public hospital and provides for state reimbursements of costs if payment is not made by the persons responsible; $50,000 is appropriated to the Health Department. Referred to the Finance Committee.

Senate Int. 216—Pack, increasing the number of commissioners of State Insurance Fund. Referred to the Labor Committee.

Comment; Same as *Assembly Int. 110—Quinn,* reported in Bulletin No. 1.

Senate Int. 218—Pack, defining occupational diseases for workmen's compensation benefits and repealing the [illegible] dust diseases.

Comment

reported in Bulletin No. 1.

Senate Int. 273—Young, provides that no person shall serve as State Regent after the April 1 next [illegible] t the shall Committee.

Senate Int. 320—Graves; Assembly Int. 387—Parsons, provides for uniform sanitary requirements and inspection by the State Health Department of dairy farms, receiving stations, and other milk plants; authorizes the [illegible] to issue permits for the [illegible] milk products; $396,0[illegible] ferred to the Finance Committee in the Senate and the Ways and Means Committee in the Assembly.

Senate Int. 367—Hammer; Assembly Int. 283—Stuart, allows the local health officer additional pay for investigations in cases of death without medical attendance and includes Indians on reservations to be counted in determining his salary; payment for service and expenses in suppression of rabies shall, instead of may be, paid by the fiscal officer of the health district or pursuant to local finance law. Referred to the Health Committees.

Senate Int. 368—Hammer; Assembly Int. 254—Stuart, authorizes the Health Commissioner to embargo any part of a milk supply so contaminated as to be dangerous to health or if curtailment of supply is threatened as a result of accident, sabotage of enemy action pending investigation, and to authorize transfer from one plant or municipality to another for pasteurization, bottling, or sale; the emergency provision for embargo expiring July 1, 1945, is repealed. Referred to the Health Committees.

Senate Int. 369—Hammer; Assembly Int. 284—Stuart, includes the county health district in the definition of the health district for regulation of venereal and certain other contagious diseases. Referred to the Health Committees.

Senate Int. 370—Hammer; Assembly Int. 255—Stuart, strikes out the reference to inspection by the director of laboratories and research division in the Health Department of Laboratories outside of New York City. Referred to the Health Committees.

Senate Int. 371—Hammer; Assembly Int. 286—Stuart, strikes out the provision that the superintendent of each state hospital and institution and the director of the State Institute for Malignant Diseases shall be in a competitive civil service class. Referred to the Health Committees.

Senate Int. 372—Hammer; Assembly Int. 445—Chase, gives the New York City health commissioner jurisdiction of permits for the possession or cultivation of live pathogenic micro-organisms or viruses other than vaccine virus, and changes the provisions relative to registration and sale. Referred to the Health Committees.

Senate Int. 373—Hammer; Assembly Int. 444 Chase, provides that the possession of a forged narcotic prescription by a person other than an apothecary pursuing his profession shall be presumptive evidence of intent to use same for illegally obtaining a narcotic drug and makes other changes relative to narcotic drugs. Referred to the Health Committees.

Senate Int. 381—Warner; Assembly Int. 311—Morgan, creates a commission of three senators, three assemblymen, and three persons appointed by the Governor, to be known as the New York Commission on Physical Fitness, to promote physical fitness through physical training, athletic sports, recreation, and camping; $75,000 is appropriated. Referred to the Defense Committee in the Senate and the Ways and Means Committee in the Assembly.

A resolution was made by Mr. Hammer creating a committee to study public health laws, particularly provisions relating to foods and drugs; also other laws which relate to the sale and preparation of food, foodstuffs, and drugs, providing for a report on February 1, 1946, and appropriating $15,000. To Finance Committee.

Assembly Int. 141—Jack, establishes in the Health Department a health insurance fund with an administration board of thirteen members appointed by the Governor; the fund is to be maintained by contributions of employees, employers, and the State, and provides for payment of cash benefits and for maternity and other medical care; allows persons of low income to insure in the system, and appropriates $1,000,000. Referred to the Ways and Means Committee.

Assembly Int. 154—Gittleson, provides that, after the filing of hospital liens in cases of accidents, the injured person or his legal representative in case of death, or the person responsible for the injuries or the hospital may require the court to determine and fix reasonableness of the lien. Referred to the Judiciary Committee.

Assembly Int. 175—Farbstein, requires city education boards and school districts maintaining public schools to provide adequate health service for pupils 15 years of age and over, and facilities to afford physical examination including x-raying of chest; the State War Council may help districts financially unable to provide services. Referred to the Education Committee.

Senate Committee on Codes

*Fred A. Young, *Chairman*	F. R. Coudert
W. J. Mahoney	J. D. Bennett
P. W. Williamson	J. V. Downey
E. S. Warner	R. H. Rudd
R. A. DiCostanzo	Isidore Dollinger
G. H. Pierce	L. L. Friedman

Senate Committee on Finance

*A. H. Wicks, *Chairman*	G. T. Seelye
T. C. Desmond	P. B. Duryea
W. W. Stokes	F. H. Bontecou
E. S. Warner	P. W. Williamson
William Bewley	F. E. Anderson
W. F. Condon	R. A. DiCostanzo
F. A. Young	J. J. Crawford
R. B. Janes	S. J. Wojtkowiak
F. R. Coudert	Lazarus Joseph
W. J. Mahoney	Carl Pack
H. W. Griffith	A. A. Falk
I. B. Mitchell	William Kirnan
Seymour Halpern	

Senate Committee on Insurance

*W. J. Mahoney, *Chairman*	A. W. Erwin
F. S. Warner	J. D. Bennett
P. W. Williamson	F. E. Hammer
W. F. Condon	S. L. Greenberg
F. R. Coudert	R. P. Byrne
I. B. Mitchell	Isidore Dollinger
R. S. Bainbridge	L. L. Friedman
F. E. Anderson	

Senate Committee on Judiciary

*P. W. Williamson, *Chairman*	A. W. Erwin
F. R. Coudert	R. A. DiCostanzo
F. A. Young	Lazarus Joseph
C. O. Burney	Carl Pack
W. J. Mahoney	A. A. Falk
F. E. Anderson	F. J. Mahoney
G. H. Pierce	S. L. Greenberg

Senate Committee on Labor and Industry

W. F. Condon, *Chairman*	P. B. Duryea
A. H. Wicks	T. F. Campbell
Mrs. R. F. Graves	William Kirnan
William Bewley	J. V. Downey
R. A. DiCostanzo	M. A. Cullen

Senate Committee on Public Education

*F. R. Coudert, *Chairman*	C. B. Hammond
F. A. Young	P. B. Duryea
Mrs. R. F. Graves	A. J. Oliver
T. C. Desmond	S. L. Greenberg
R. B. Janes	J. A. Corcoran
H. W. Griffith	Carl Pack
I. B. Mitchell	G. I. Novod

Senate Committee on Public Health

*F. E. Hammer, *Chairman*	L. H. Brown
T. C. Desmond	J. A. Corcoran
W. F. Condon	Isidore Dollinger
H. W. Griffith	William Rosenblatt
R. A. DiCostanzo	

Senate Committee on Public Relief and Welfare

*J. D. Bennett, *Chairman*	A. W. Erwin
A. H. Wicks	T. F. Campbell
Mrs. R. F. Graves	William Kirnan
W. F. Condon	L. L. Friedman
William Bewley	G. I. Novod
R. A. DiCostanzo	Isidore Dollinger

* Indicates new chairman for 1945.

Bulletin No. 3 issued by the Legislative Bureau of the Medical Society of the State of New York, January 29, 1945.

New Bills Introduced

Senate Int. 467—Burney; Assembly Int. 638—Volker, provides reasonable cost to municipality of medical examination, including chemical analysis, of a person arrested for operating a motor vehicle

or motorcycle while intoxicated, and the cost of court attendance of the person making analysis shall be a charge against the State Referred to the Motor Transportation Committee in the Senate and the Motor Vehicles Committee in the Assembly

Senate Int 476—Joseph, health insurance bill Referred to the Finance Committee

Comment Same as *Assembly Int 141—Jack*, reported in Bulletin No 2

Senate Int 506—Burney, Assembly Int 560—Pillion, continues to July 1, 1946 the provision permitting a person inducted into military service and licensed to practice medicine, dentistry, and other professions and occupations to apply for renewal of license without examination within three months after the termination of military service Referred to the Defense Committee in the Senate and the Education Committee in the Assembly

Comment Continues the provision passed in 1944 for a year

Senate Int 510—Condon Assembly Int 646—Crews, creates a workmen's compensation board to take the place of the industrial board, at expiration of the term of the present members terms are to be staggered so that a minimum number will be chosen each year, places the quasi judicial functions concerning workmen's compensation and the administrative work relating thereto under control of the board, referees are to be appointed by the board and are to act under the supervision of the chairman Referred to the Labor Committees

Comment A long bill which is along the lines recommended to improve the Workmen's Compensation Law reducing conflict of overlapping authority

Senate Int 515—Hammer, changes provisions for examination or quarantine of persons suspected of venereal disease and for the treatment or quarantine of persons infected Referred to the Health Committee

Comment Same as *Assembly Int 434—Stuart*, reported in Bulletin No 2 Extends the control of venereal disease

Senate Int 539—W J Mahoney, Assembly Int 556—Mailler, continues to July 1, 1946, the provision permitting practice of medicine in a hospital by physicians and interns with certain educational qualifications and provisions relating to medical students performing clinical clerkship Referred to the Education Committees

Comment Extends for a year the amendment which has been extended each year during the period of the war

Senate Int 573—Bennett, Assembly Int 695—Barrett, provides that home relief shall, instead of may be, granted in cash except that, where granting of cash may be deemed impracticable, it may be granted by order, medical, dental, and nursing care, including drugs and medical materials and supplies, may be granted by order Referred to the Relief and Welfare Committee in the Senate and the [illegible] embly

Senat [illegible] les for settlem[illegible] work-men's [illegible] referee deems [illegible] period of the disability does not exceed six weeks and the claim is not for permanent partial disability, the medical question may be submitted to a physician designated by the department, and the claimant, within one year after award or ruling on the submitted claim, may object and have the claim treated as a controverted claim, referees after September 1, 1945, shall be attorneys-at-law and no person except an attorney shall appear for the claimant on and after that date, with certain exceptions, makes other changes relative to settlements and compromises Referred to the Labor Committee

Comment The purpose of this bill is to speed up settlement of compensation claims

Senate Int 624—Desmond, regulates the manufacture and sale of bread and flour and requires the enrichment thereof to protect and promote public health and welfare, defines "enriched" as the addition of vitamins and other ingredients to make them conform to standards fixed by order of the Federal Security Agency on July 1, 1943 requires that flour or wrapped white bread or rolls shall be labeled to conform to the Federal food, drug, and cosmetic act, $25,000 is appropriated to the Agriculture and Markets Department Referred to the Finance Committee

Comment Provides State Law enforcing standards fixed by the Federal Security Agency and recommended by the National Research Council

[illegible] workmen's [illegible] chefs in [illegible] ardous for such purposes work in restaurants, bars, grills, lunchrooms, and luncheonettes Referred to the Labor Committee

Assembly Int 588—Mailler, relative to the length of term of the State Regent Referred to the Education Committee

Com[illegible] ent Same as *Sen[illegible] Int [illegible]—Young*, re-[illegible] nlawful for a person to manufacture or sell flour or bread and rolls unless they have certain specified vitamin and mineral contents until the Agricultural Commissioner shall establish other standards Referred to the Agriculture Committee

Comment Similar to but not the same as *Senate Int 624*,

Assembly Int 748—Preller, changes the classification of hospital nurses in civil service positions Referred to the Civil Service Committee

Comment Same as *Senate Int 54—Halpern*, reported in Bulletin No 1

Assembly Int 750—Knauf, makes it a misdemeanor to include in any newspaper, radio, display sign, or other advertisement any statement which misrepresents material, frames or mounting, or price of lenses or of complete eyeglasses, or to advertise frames unless the price of the frame is advertised with the words "without lenses" or to misrepresent service or credit terms Referred to the Codes Committee

A resolution was made by Mr Fogarty, creating a committee to study the Workmen's Compensation Law, the administration of same, existing defects therein, etc, providing for report February 1, 1946 and appropriating $50,000 Referred to the Ways and Means Committee

A resolution was made by Mr Graci, creating a committee to study and make an analysis of laws pertaining to health, including laws relating to sale and preparation of food and drugs (Identical resolution by Senator Hammer, Bulletin No 2) Referred to the Ways and Means Committee

A resolution was made by Mr Knauf, creating a committee to [illegible] supplies to the [illegible] ards may be p[illegible] ing of optical [illegible] all convenient [illegible] referred to the Ways and Means

Assemblyman DeSalvio has introduced bill *Int. 574* which permits the industrial board in workmen's compensation cases to make award for serious disfigurement instead of disfigurement in certain areas.

Action on Bills

Assembly Int. 66—Mailler—Medical Care Committee, continued. Law, Chapter 5.

Assembly 129—Stuart—Health Law, tuberculosis hospitals. Passed Assembly; in Senate Finance Committee.

JOHN L. BAUER, M.D.
WALTER W. MOTT, M.D.
LEO F. SIMPSON, M.D.
Committee on Legislation

ROBERT R. HANNON, M.D.
Executive Officer

THE PLACE OF PREVENTIVE MEDICINE IN THE MEDICAL CURRICULUM

The Conference of Professors of Preventive Medicine, held at the time of our New York meeting, staged an interesting discussion on the role of courses in preventive medicine in the education of the physician.

It was generally agreed that public health is a field for postgraduate training but that preventive medicine is an essential part of the training of the medical student. An important point was raised, however, by speakers who contended that this subject might well be taught as a part of other courses and not as a separate item in the curriculum.

Clearly this is a counsel of perfection. The day may come when personal hygiene is taught as a part of physiology and when the clinical branches of medicine are developed not only from a preventive aspect but also with a view to that constructive medicine which visualizes the ideal of health in a positive sense as the goal of the physician. Were such ideals generally realized (as they are today in some pediatric faculties) no separate department of "preventive medicine" might be needed. That day, however, is far in the future.

Even in such a Utopian situation, there is one basic element which it would be essential to add to the curriculum. Nowhere (except in "preventive medicine" or "public health" does the medical student receive instruction in the basic and fundamental influences on health of the physical and social environment. When the work of the clinical years has become thoroughly permeated with a preventive and constructive viewpoint, there will still be need for a special course, (perhaps preclinical) in environmental therapeusis, covering the influences of sanitation and of the community machinery and social factors influencing physical and emotional well-being. This is a subject quite as important as materia medica.

Finally, in considering the basic problem of arousing in the medical undergraduate a really vital interest in prevention, we should not forget the obstacles placed in our way by the present economic basis of medical practice. So long as the doctor is paid on a fee-for-service basis, his income and his opportunity for service must depend on the treatment of disease, since he will be called in only when something hurts. The medical student subconsciously realizes this fact and inevitably feels that prevention, if not hostile to his interests, is at least irrelevant to them. Only when the doctor is habitually employed on a prepayment basis for health service will preventive and constructive medicine really become vitally significant.—*Am. J. Pub. Health, Dec., 1944*

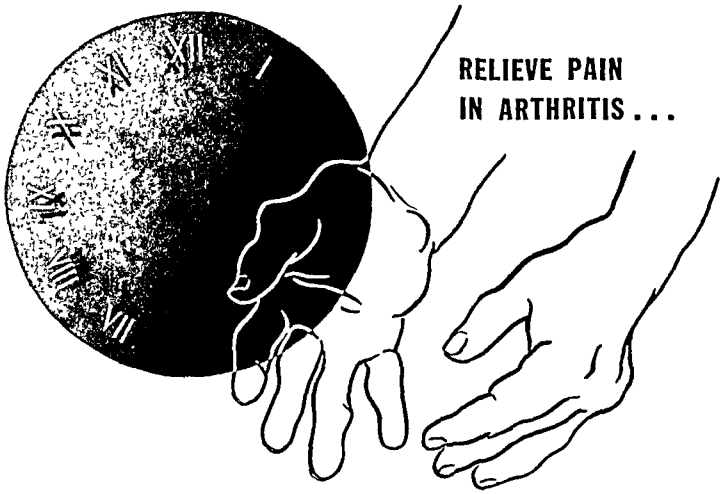
A TRIBUTE TO THE AMERICAN MEDICAL ARTIST

A showing of medical art comprising the work of leading artists associated with medical schools and clinics from coast to coast opened January 8 at the Enoch Pratt Free Library in Baltimore and continued until January 29. The Department of Art as Applied to Medicine of the Johns Hopkins Medical School loaned a fine collection of the work of the late Max Brodel which was a focal point of interest in the display. For many of the out-of-town artists this exhibition is actually a homecoming as they studied in Baltimore with Mr. Brodel.

Represented are his daughter, Elizabeth Brodel, now with New York Hospital; William P. Didusch and Dr. Harry Wilmer, of the Johns Hopkins Hospital; James F. Didusch, of the Carnegie Institute of Washington and the Johns Hopkins Medical School; Ranice W. Birch, of the Department of Art as Applied to Medicine, Johns Hopkins Medical School: Jean Hirsch, University of Minnesota; Gladys McHugh, University of Chicago; Theodora Bergsland, Western Reserve, Cleveland; Helen Lewis Loud, Lahey Clinic; Mildred Codding, Peter Bent Brigham Hospital and Harvard Medical School; Evelyn Erickson, Wayne University Medical School, and Russell Drake, Mayo Clinic. Other exhibitors included Tom Jones, head of the Department of Art, University of Illinois; W. C. Shepard, Mary Dixon and Lucille Cassell of Northwestern University; Kay Bell, Kansas School of Medicine; Ralph Sweet, University of California; Helen Williams, Western Reserve University; Armen Hemberger, Yale; Vera Morel, Tulane University; Ruth Bialek, University of Maryland.

The exhibit, which is arranged by Modern Medicine, as a tribute to the American medical artist, was shown during February in Rochester at the Public Library.

Wyeth
REG. U. S. PAT. OFF.



Without the wheal and woe OF URTICARIA

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1. Cohen, A., and Rosen, H.: Arch. Physical Therapy 21,12, 1940.



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Medicolegal

WILLIAM F. MARTIN, ESQ.
Counsel, Medical Society of the State of New York

Hospital's Liability for Acts of Nurses

MANY years ago the courts of this State adopted a rule of law affording to charitable hospitals considerable immunity from liability for the professional acts of the physicians or nurses on their staffs. Although there are exceptions to that rule, it is still valid as a general principle of law, as is evidenced by the result in a case which was recently handled by your Counsel.*

The plaintiff in the case, an elderly woman, fell at home, sustaining a fractured femur. She entered a hospital where her personal physician, Dr. S., operated upon her to reduce the fracture. She was returned to her room in the surgical ward, and it was soon found that she was noisy and disturbing other patients, so the doctor ordered her put in bed in the solarium. Dr. S. directed the nurses to keep a close watch of the patient because of her disturbed condition.

From 9 P.M., when the plaintiff was put in the solarium, until 3:30 A.M., she remained quiet, and was seen by various nurses, who observed her apparently to be sleeping. At 3:30 A.M., however, a nurse observed that the patient had removed the operative dressing, and had become noisy. A house physician was called and a drug was administered. From then until a few minutes before 7 A.M. she was constantly attended by at least one nurse. During that period of time a second sedative was given, and when at the end of that time the patient was left alone, the nurses had concluded that the patient was quiet enough to be left unattended for a brief interval.

A few minutes later, while no nurse was actually present, the patient managed to fall from the bed to the floor and sustain injuries which concededly aggravated her condition.

She brought suit against the hospital, charging it with responsibility for the alleged negligence of the nurses, in that the patient had fallen when unattended.

The case came on for trial as a jury case. The proof was substantially as set forth above. It appeared that the plaintiff was a paying patient at the hospital, and it also appeared as unquestioned that the hospital was a charitable, not-for-profit institution. There was no proof that the patient's physician had ordered constant watching, although he had pointed out the disturbed condition of the patient to the nurses. The proof showed that there was a suitable number of nurses on duty, and there was no proof of incompetence on the part of any of the nurses.

At the conclusion of the testimony, the trial judge dismissed the complaint on the grounds that there was no *prima facie* case for submission to the jury. The plaintiff appealed to the Appellate Division of the Supreme Court and that Court affirmed the judgment in favor of the hospital. In so deciding the Court was not unanimous and two opinions were written in support of the affirmance and another opinion was written in dissent.

In the course of the opinion for affirmance written by Mr. Justice Heffernan, the following summary of the applicable law was made:

"It is conceded in this case that defendant is a charitable corporation established for the care of sick and indigent persons. The fact that it received compensation from some of its patients, as in the case of plaintiff, does not affect in any respect its eleemosynary character or liability as a public charity. Defendant undertakes not to heal or attempt to heal through the agency of physicians and nurses, but merely to supply them in order that they may minister to the needy on their own responsibility. In this State an exception to the doctrine of *respondeat superior* has been adhered to consistently. Doctors and nurses, so our courts have held, are not the agents and servants of a charitable corporation, but rather independent contractors for whom the hospital has provided a place to aid the suffering.

"It may well be that charitable corporations should not be immune from liability for the torts of their agents. The Court of Appeals has taken a long step in that direction in *Sheehan vs. North Country Community Hospital* (273 N.Y., 163). Notwithstanding the court's pronouncement in that case it is still the law of this State that a charitable corporation will be held liable for the torts of its mere servants or agents but not for those whom the court considers to be independent contractors such as physicians, surgeons, nurses, professors, instructors, and the like, if it has exercised reasonable care in their selection and retention. The doctrine of *respondeat superior* cannot be invoked as to them, because there is no relationship of master and servant upon which to predicate it. To enable such an institution to protect itself behind the shield of immunity it is only necessary to show due care in the selection and retention of those who serve it in the capacities indicated." (citing cases)

"It is not without significance that plaintiff's action is predicated solely on the negligence of defendant's nurses. No claim is asserted that defendant breached any contract, express or implied, with plaintiff. There is no contention that defendant was negligent in the selection of its nurses; in fact it is not even asserted that defendant's nurses were incompetent. Negligence in this case, if negligence there be, which is extremely doubtful, is bottomed solely on the negligence of defendant's nurses. Defendant, on the record before us, is not answerable for the tortious acts of its nurses."

In the course of his opinion, also for affirmance, Mr. Justice Crapser stated, in part:

"The defendant hospital fulfilled its obligations; it placed the patient in a suitable and safe place

[Continued on page 544]

* *Lee vs. Glens Falls Hospital*, 265 App. Div. 607; 291 N.Y. 526.

recent extensive investigation confirms contraceptive effectiveness of the active ingredient in Koromex Jelly

A most illuminating report based on extensive clinical and experimental data has recently been published by Eastman and Scott (Human Fertility, 9:33, (June) 1944.) These authors studied the safety and efficacy of phenylmercuric acetate which is the active constituent of Koromex Jelly.

1 Clinical evidence showed that in actual use, phenylmercuric acetate jelly had a remarkable record for contraceptive efficiency.

2 The earlier work of Baker, Ranson and Tynen (Lancet, 2:882, (October 15), 1938), showing a very high spermicidal potency, was confirmed.

3 Toxicity was found low.

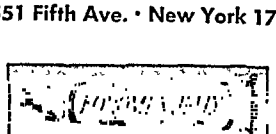
4 No evidence of irritability on the part of either the husband or wife.

In addition to the above qualities, Koromex Jelly, which also contains oxyquinoline benzoate and boric acid in a well buffered glycerine gum base, has the properties of adhering firmly to the vaginal lining and mixing readily with the vaginal secretions. It has optimum spreading qualities. Its pH of 4.6 is constantly maintained even in the presence of the buffering action of the protein seminal fluid.

Koromex Jelly does not stain. It is not excessively lubricating, and is well tolerated. Because of these qualities you can assuredly — prescribe Koromex *with confidence.*

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[Continued from page 542]

as ordered by her doctor. It furnished ample nursing facilities to the patient and her physician. There was no special nurse ordered on the case by her doctor. His orders were carefully carried out. The hospital's obligations were fulfilled according to all the evidence in the record.

"The relation between a hospital and its physicians is not that of master and servant but merely to procure them to act upon their own responsibility. When nurses or physicians are treating a patient they are not acting as servants of the hospital. It is true that the superintendent, assistant superintendent, orderlies, and members of the administrative staff are servants of the hospital but nurses are employed to carry out the orders of the physician, to whose orders they are subject. The hospital undertakes to procure for the patient the services of a competent nurse; it does not through the agency of the nurses render those services itself."

The plaintiff took the case to the Court of Appeals, and although that Court wrote no opinion in connection with its decision, the judgment in favor of the hospital was affirmed.

"DOCTOR JONES" SAYS—

"Jack Spratt could eat no fat and his wife could eat no lean, and so, betwixt them both" they probably violated most of the rules of good nutrition. It's conceivable, of course, that Mr. Spratt had something wrong with his digestion so he couldn't digest fats. And Mrs. Spratt—she might've had some disease or other that gave her an abnormal craving for fats. But the probabilities are their being so finicky was just the result of picking up foolish ideas when they were kids—maybe from the old folks.

However, I'm not so much concerned about the family history of the Spratts as I am about the nutrition of the children of the present generation. The science of nutrition—it's something we're just beginning to get to the bottom of. And, the better we understand it, the more we realize how important good nutrition is.

It don't mean just satisfying our appetites and keeping our figures stylish. It's a matter of getting the proper proportion of the right food elements. Lack of necessary food elements—it's been responsible for failures in life—millions of 'em—and even for wars being lost. And the thing of it is: most of our dietary habits are established in childhood.

A little girl I see frequently—she's somewhere around ten or eleven—she's got a face like a Madonna and a figure like a pillow with a string around the middle.

I practically never see her but what she's eating something; candy or an ice cream cone or what not. It's just simply overeating that's making her too fat. There are, of course, cases of excessive overweight that're due to a disorder of one of the endocrine glands but they're comparatively rare.

Anyway, this young lady—in a few years now she'll begin to give more thought to her figure. Then I s'pose she'll go on a diet—and probably overdo it.

Another girl, a little older, she's all for keeping her weight down. So she eats half a breakfast and goes without lunch. And she don't weigh any too much as it is. This "boyish figure" idea—why a girl should want to—well, anyway, one extreme's as bad as the other.

Somebody asked me, the other day, if I practiced what I preached. Well, teaching an old dog new tricks, you know—at any rate I'd like to see the young ones get started right.—*Paul B. Brooks, M.D., in Health News, Jan. 1, 1945*

TELEVISION IN HEALTH EDUCATION

The First Annual Conference of the Television Broadcasters Association was held at the Hotel Commodore, New York City, December 11 and 12. Thomas C. Stowell, assistant director of the Division of Public Health Education, attended the meeting as the representative of the New York State Department of Health.

Progress and postwar plans in television were outlined by recognized authorities, including Allen B. DuMont, president of the Association; Dr. W. R. G. Baker, vice-president of the General Electric Company, whose initials are borne by the General Electric Television Station, WRGB, Schenectady; John F. Royal, in charge of television, National Broadcasting Company; and Lewis Allen Weiss, executive vice-president of the Don Lee Broadcasting System on the west coast. Entertainment features consisted mainly of programs broadcast by television to the conference.

Information produced by Mr. Stowell at a panel meeting for program directors will be made the basis for plans to be developed by the Division of Public Health Education for utilizing television in health education work. Some of the health motion pictures produced by the Division have already been broadcast by television from the National Broadcasting Company's station in New York City, and negotiations are under way with the General Electric station in Schenectady for similar broadcasts.—*Health News, Jan. 1, 1945*

Columbia University
New York Post-Graduate Medical School

SYMPOSIUM ON INDUSTRIAL MEDICINE

For Physicians in Industry and Public Health

Five Days—April 2 to 6, 1945

This symposium consists of lectures, demonstrations and practical discussions. The subjects considered include pre-employment examinations, psychiatric problems in industry, the control and treatment of respiratory infections, detection of tuberculosis, the cause and remedy of absenteeism, vascular diseases and their treatment, industrial dermatoses, traumatic surgery, dust hazards, metal poisonings, newer methods in physiotherapy, the special problems of women in industry, and the use of penicillin in industry. Fee, $45.

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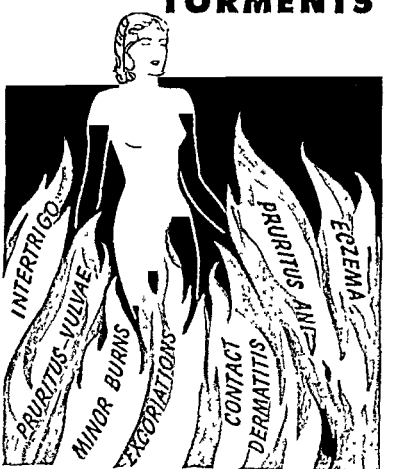
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Medical News

Army Awards Typhus Commission Medals to Ten

TWO American diplomats, five Army officers, and three Navy officers have received the Typhus Commission Medal for "exceptionally meritorious service" in the control and treatment of typhus, the War Department announced in Washington on February 4.

The Typhus Commission was authorized by President Roosevelt on December 24, 1942, as a joint organization of the Army and Navy for controlling and preventing the spread of typhus.

Laurence A. Steinhardt, now American Ambassador to Turkey, one of the ten receiving the medals, was cited for opening a cooperative project with the medical corps of the Turkish Army and the commission to fight typhus.

Col. Harry Plotz, of Brooklyn, received the medal because he "organized and directed the first laboratory provided abroad for study of the disease by Egyptian physicians at Cairo." He arrived there in January, 1943. As a commission member he is now chief of the virus and rickettsial disease division of the Army Medical School, stationed at Walter Reed Hospital, in Washington.

A medal for developing the research and diagnostic laboratory at Cairo was given to Lt. Col. John Crayton Snyder, formerly of New York City. He was cited for participating in development and trial of new methods of serum therapy and chemotherapy, for applying his knowledge to an outbreak of the disease in Naples late in 1943, where he had charge of a case-finding service, and for "untiring" research.

Alexander C. Kirk, Ambassador to Egypt, received the medal "for his great personal interest" and support of the Cairo project, which aided the commission's broadened activities in the Middle East. Capt. Thomas J. Carter, of the Navy Medical Corps, of Arlington, Virginia, was honored for his help in organizing the first overseas movement of the commission in December, 1942, and for personal attention to the participation of the Navy in the commission's function.

The two other naval officers who received medals for their work are Lt. Comdr. William B. McAllister, Jr., of Cleveland, and Lt. Comdr. Andrew Yeomans, of Brookline, Massachusetts.

Commander McAllister studied the disease as pathologist of the Cairo office in North Africa, and in the Middle East, contributing to the knowledge of the disease.

Commander Yeomans was cited for operation of an experimental hospital ward at Cairo, where he was under "constant risk of infection." He also made a survey of typhus in Naples which is credited with keeping down the fever's incidence there.

Maj. Charles M. Wheeler, of Brea, California, and Capt. Byron L. Bennett, of Boston, both members of the Army Sanitary Corps, were cited for their help in treating the disease.

Major Theodore E. Woodward, of Westminster, Maryland, who went to North Africa with the invasion forces in November, 1942, when he cooperated with French scientists of the Pasteur Institute at Casablanca, Morocco, in controlling the disease, also got a medal. He later worked in Naples and now represents the commission in the European theater of operations.

Six New Appointments to Advisory Group

THE names of six doctors who have accepted invitations to serve on the special Medical Advisory Group to the Administrator of Veterans' Affairs were announced on January 12 by Brig. Gen. Frank T. Hines, Administrator of Veterans' Affairs. These acceptances bring to fourteen the number of distinguished doctors who are now serving on this group, which has been selected to include leaders in all the major specialities of medicine.

When it is completed the group is planned to have fifteen members. The fifteenth invitation has been issued, but the name of the proposed member cannot be disclosed as a reply has not yet been received.

General Hines said this group will guide him in establishing policies and in solving the many perplexing problems that face the administration in the examination and treatment of thousands of young veterans who are being hospitalized as a result of this war. One of the primary problems is securing and training the highly qualified professional and subprofessional personnel needed to care for the increased number of hospital patients and expanding outpatient group coming to the Veterans Administration. Their services are expected to be invaluable in outlining and assaying research work in war medicine and making recommendations as to the desirability of results for incorporation in clinical and therapeutic practices in veterans' hospitals.

The six whose acceptance of appointment to this group was announced on January 9 are: Dr. Irvin Abell, of Louisville, Kentucky, professor of surgery, University of Louisville School of Medicine, past-president, American Medical Association, past-president, Southern Surgical Association, past-president, Gastro-Enterological Association, past-president, Southern Medical Association; Dr. Alfred W. Adson, of Rochester, Minnesota, senior neurosurgeon, Mayo Clinic, professor, neurosurgery, Mayo Foundation, past-president, Society of Neurological Surgery, member of the International Neurological Association, subcommittee, neurologic surgery, National Research Council; Dr. W. Edward Chamberlain, of Philadelphia, director of radiology, Temple University Hospital, professor of radiology, Temple University, member of the National Research Council, and American Radium Society, former chairman, Board of Chancellors, American College of Radiology, Radiological Society of North America; Dr. John S. Coulter, of Chicago, professor of physical therapy and in charge of physical therapy departments, Northwestern University, American Congress of Physical Therapy, Council on Physical Therapy; Dr. Malcolm T. MacEachern, of Chicago, associate director and chairman, administrative board, American College of Surgeons, former general superintendent, Vancouver General Hospital, Vancouver, B.C., member, Committee on Hospitals and Memorial Commission on Physical Rehabilitation, National Defense Advisory Council, advisory board, American Dietetic Association, advisory council, Association of Medical Social Workers; Capt. Erik G. Hakansson, of Bethesda, Maryland, medical director, U.S. Navy, Naval Medical Research Institute, National Naval Medical Center, Bethesda.

The eight who had previously accepted have been reported in a recent issue of the JOURNAL.

[Continued on page 548]



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Medic

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[Continued from page 546]

Sir Harold Whittingham Receives Aeromedical Award

SEVEN leaders in aeronautics, including Air Marshal Sir Harold Whittingham, director of Royal Air Force medical services, received awards at a meeting of the Institute of the Aeronautical Sciences in New York City, in January.

In accepting the John Jeffries Award for outstanding contributions to aeromedicine, Sir Harold said that there had been the closest cooperation between British and American researchers into aeromedicine.

The presentation was made by Maj. Gen. David N. W. Grant, air surgeon of the Army Air Forces.

County News

Albany County

The January meeting of the Albany County Medical Society, postponed from January 17 because of heavy snowfall, was held at 9 P.M. on January 24 in the auditorium of Albany College of Pharmacy.

Dr. Frank H. Lahey, director of the Lahey Clinic and trustee of Northeastern University, Boston, spoke on "Lesions of the Terminal Ileum, Colon, and Rectum." Discussion was opened by Dr. J. Lewi Donhauser, Dr. Stanley E. Alderson, and Dr. Arthur M. Dickinson.*

• • •

Regents of the state paid tribute to Dr. Arthur B. Van Loon, dean of Albany physicians, who served eighteen years on the Medical Grievance Committee of the University of the State of New York, at a dinner in his honor at the Union Club in New York City.

Dr. Van Loon, with the committee since its establishment in 1926, served as secretary and president but resigned last year because of pressure of his private practice. He has been associated with Memorial Hospital, Albany, for more than fifty years.

An inscribed plaque was presented him by members of the committee. Regent George H. Bond, of Syracuse, made the presentation. Vice-chancellor William J. Wallin paid tribute to the Albany physician for service he has given the medical profession.*

• • •

Dr. Esther McDonald Lloyd-Jones, professor of education, Columbia University, spoke at the annual luncheon of the Albany Visiting Nurse Association at 12.15 P.M., January 24, in Trinity Methodist Church, Albany.

The meeting was in cooperation with the Public Health and Maternal Welfare Committees of the county society. Reports were read by committee chairmen, with Mrs. Frank C. Hughson, president, presiding.

Dr. Lloyd-Jones, author of several educational books, spoke on "Toward Full Effectiveness."*

Columbia County

Dr. J. D. Hexom, of Decorah, Iowa, has opened an office in Chatham.

Dr. Hexom has, for the past twenty-five years, conducted a successful medical practice in Decorah. He was graduated from the Iowa State University Medical School.*

Erie County

Capt. Joseph Y. Spinuzza, of Buffalo, has retired from the Army Medical Corps and resumed the private practice of medicine at his residence. In service twenty-eight months, he was injured on tank maneuvers near Fitzsimmons General Hospital, Denver, Colorado, where he was last assigned. A practicing physician for seventeen years. Dr. Spinuzza was a member of the surgical staffs of Lafayette and Columbus hospitals before he enlisted in the Medical Corps in 1942.

• • •

Medicine and law joined hands in Buffalo on January 12 for the first of a series of round-table conferences designed to achieve important improvements in the operation and administration of the Workmen's Compensation Law Court of the Buffalo district office, State Department of Labor.

Meeting in the Hotel Statler offices of the county society, the society's Workmen's Compensation Board, the Workmen's Compensation Committee of the Erie County Bar Association, and referees of Workmen's Compensation Court discussed at length the common problems of the two professions in the trial and disposition of compensation cases.

They agreed unanimously to cooperate closely to correct numerous unsatisfactory procedures, and institute new methods, where needed, to expedite decisions on claims, assure claimants the full benefits of the law, and conserve the time of doctors and lawyers.*

• • •

The *Erie County Medical Bulletin* appeared in a new expanded, reorganized form in January. It is expected that the new *Bulletin* will function more effectively and vigorously as a local instrumentality for the safeguarding and the promotion of the public health through its broader field of activity and influence.

Jefferson County

Dr. Walter G. Robinson, of Alexandria Bay, has announced that Dr. Robert Barker Burtch will be associated with him in the practice of medicine and surgery.

The two physicians will have their offices in the Kepler homestead next to the Noble Foundation Hospital. These offices, now occupied by Dr. Robinson, will be enlarged to accommodate the two doctors.

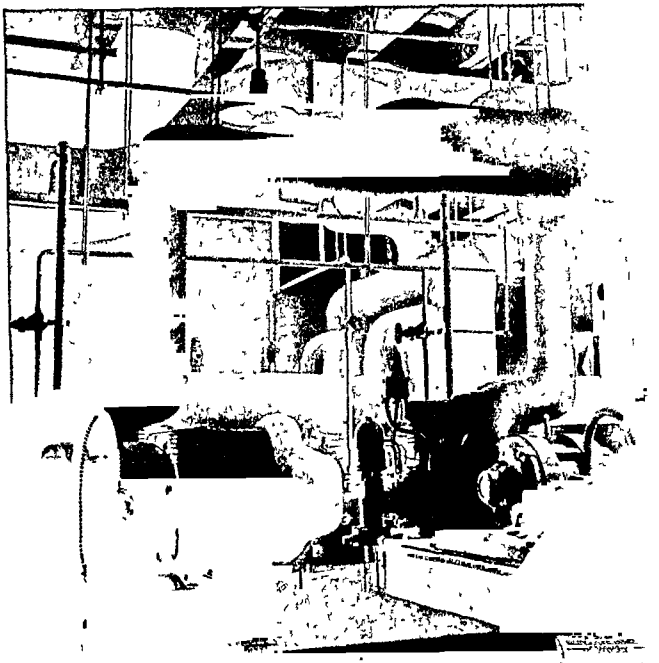
Dr. Robinson served in the Army Medical Corps from March, 1941, to January, 1942. Dr. Burtch is a flight surgeon in the Naval Medical Corps, with the Pacific fleet.*

• • •

The regular monthly meeting of the county society was held on February 8 at the Black River Valley Club. Dr. Ellery G. Allen, assistant professor of clinical medicine, Syracuse University College of Medicine, delivered a lecture entitled "General

* Asterisk indicates that item is from a local newspaper.

[Continued on page 550]





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[Continued from page page 548]

Résumé of Hematological Disorders Including the Anemias."

Monroe County

Dr. J. Rodney Heller, director of the Division of Venereal Disease, United States Public Health Service, was the guest speaker at a luncheon meeting held in observance of Social Hygiene Day, February 5, in the Chamber of Commerce.

Agencies sponsoring the Social Hygiene Day observance were the Rochester Health Bureau, the University of Rochester, the District Office of the State Department of Health, the Monroe County Medical Society, the Tuberculosis and Health Association, and the Junior Chamber of Commerce.

The national observance is sponsored by the American Social Hygiene Association, a voluntary health organization which works in close cooperation with the Army, Navy, U.S. Public Health Service, and other similar units of the federal and state governments.*

New York County

The New York Heart Association, formed thirty years ago to study diseases of the heart, and, since 1926 a division of the New York Tuberculosis and Health Association, Inc., will resume the status of an independent organization on April 1, it was announced on January 26 at a dinner meeting in the Hotel Carlyle, New York City.

Announcement was made in a joint statement by Dr. J. Burns Amberson, president of the tuberculosis association, and Dr. Edwin P. Maynard, Jr., president of the heart association. The expansion of the program of the latter group, the statement said, made it inadvisable for both organizations to continue together.

Dr. Maynard also announced a campaign for $150,000 for the new association, to begin in the near future under the direction of Dr. Harold E. B. Pardee. The association will maintain offices at the New York Academy of Medicine, and the financial committee will have offices at 331 Madison Avenue.*

• • •

A second pint of whole, Rh-negative, type A blood left La Guardia Field by Army bomber on January 10 on its way to Alexandria, Egypt, where it provided a transfusion for a 15-year-old Greek boy. The first pint left this country on December 15, and reached Alexandria five days later, traveling without refrigeration.

Dr. Lester J. Unger, director of the Blood and Plasma Exchange Bank of the county society, said that this was thought to be the first time whole blood had been shipped without refrigeration more than two hundred miles. Dr. Unger said the blood was sent directly from the stock of the Blood and Plasma Exchange Bank at Post-Graduate Hospital. It was encased only in insulating material, and was accompanied by a sterile transfusion administration set.*

• • •

Tau Chapter of Nu Sigma Nu met for the annual Walter L. Niles Memorial Lecture on February 20, at 8:15 P.M., in the auditorium of the Cornell University Medical College. The speaker was Dr. E. Cowles Andrus, associate professor, Johns Hopkins University, and Chief, Division of Medicine, Committee on Medical Research, Office of Scientific Research and Development. Dr. Andrus' lecture was entitled "Wartime Medical Research."

• • •

New York University announced on January 29 the establishment of a division of physical medicine, financed under a $250,000 grant from the Baruch Committee on Physical Medicine. The new division, part of the university's College of Medicine, will specialize in research in physical and vocational therapy and preparation of doctors to rehabilitate both wounded war veterans and civilian disabled.

Last April 27 the ten-year grant of $250,000, which will yield a yearly income of approximately $30,000 to the division, was given to the university by the Baruch committee, which was organized in October, 1943, by Bernard M. Baruch to explore the possibilities of service in the field of physiotherapy.

To head the new division Harry Woodburn Chase, chancellor of the University, named Dr. George G. Deaver, director of the university's program for training technicians in physical therapy and medical director of the Institute for the Crippled and Disabled. He will have the title of clinical professor in charge of physical medicine.

The division will supervise the physiotherapy and occupational therapy services of Bellevue Hospital and will coordinate this work with the rehabilitation program of the Institute for the Crippled and Disabled, which is three blocks south of Bellevue on First Avenue.*

Deaths of New York State Physicians

Name	Age	Medical School	Date of Death	Residence	Cause
Abraham Ball	56	Albany	January 24	Albany	Heart attack
Aaron Brown	60	Cornell	January 24	Manhattan	...
Michael A. Conboy	74	P. & S., Balt.	January 14	Buffalo	Heart attack
John J. Flanagan	67	Edinburgh	January 29	Manhattan	...
John Van Doorn	77	Buffalo	January 13	Marion	...
Wilson B. Zimmer	63	Cornell	February 5	Brooklyn	Heart attack

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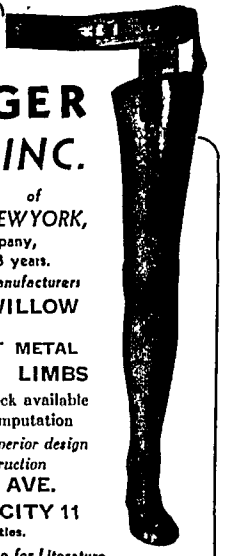
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Hospital News

Improvements

For more than a year a committee appointed by the Boonville Kiwanis Club, consisting of Fred Pareria, Lyman P. Williams, Clayton A. Musser, Devere K. Merrill, and Joseph Sternberg, has been endeavoring to make arrangements whereby the building owned by the Dodge Memorial Hospital could be used for public purposes. The members of this committee have taken the matter up with State officials.

In January Mr. Williams, who has acted as counsel for the committee, received definite assurances from the Attorney General's office that if the Village of Boonville, through the Village Board, would accept the Dodge Memorial Hospital building and agree to use it for public or governmental purposes, this would meet with the approval of that Department.

Mr. Williams states that if the people of the Village of Boonville wish to have the village take over the Dodge Memorial Hospital building and complete it and use it for public purposes, it would appear that it could be done at this time. If it is done, it will result in the final solution of the problems connected with the hospital which have been confronting the community and its residents for the past several years.*

• • •

The board of managers of Rome Hospital, Troy, has under consideration a suggestion that illuminated signs be erected at the exit and entrance to the institution, Mrs. Myra Wheat, secretary of the board, informed aldermen last night. The suggestion for such a sign came from Alderman Alfred M. Hoehn.*

At the Helm

Mrs. Dana H. Grant, of Mt. Vernon, was unanimously elected a member of the board of managers of Mount Vernon Hospital, and presented to board members, by Arthur L. Zerbey, board president, at a meeting on January 15 at the hospital.

Mrs. Leon Mann was unanimously elected an honorary member of the board in recognition of her "distinguished service on the board and as a member of various committees over a period of thirty-two years." Mrs. Mann's term of office expires next month.*

• • •

Word has been received that Capt. Morris Schwartz, of Beacon, is now in full charge of the neuropsychiatric section of the 97th General Hospital in England.*

• • •

Four new trustees, choices of a nominating committee headed by Harold R. LaBonte, were elected by the staff of Tompkins County Memorial Hospital, Ithaca, on January 15. They were Walter N. Brand, Bernard M. Clarey, Arthur J. Keeffe, and Clifford L. Morgan. They succeed Joseph S. Barr, LaBonte, Lewis H. Durland, and Prof. E. Frank Phillips.*

• • •

The Tioga County General Hospital's board of directors re-elected all officers and chose three new members of the board on January 16 at the hospital.

The new directors are: John T. Slater and Harold C. Watrous, both of Waverly, and Herman Porter, of Lockwood. Re-elected directors were: Joseph J. Mullins, Earl C. Cooper, Berton J. Cotton, Floyd G. Doty, Edward W. Eaton, Myron L. Fisher, William E. Halstead, Luther C. Hardy, I. N. Peterson, and Verne A. Hicks.

Officers were all re-elected as follows: president, Arthur B. Stiles; first vice-president, Hon. Nathan Turk; second vice-president, Leonard R. Chubb; third vice-president, Jesse Hart; secretary, Luther C. Hardy; treasurer, Earl C. Cooper; executive committee, Mr. Stiles, chairman, Mr. Cotton, Hart I. Seely, Arthur S. Buckley, Mr. Hardy, Mr. Cooper, Mr. Eaton, Elwin H. Johnston, Floyd Beers, Clifford Dounce, and Dr. Harry S. Fish.*

• • •

John P. Gualtieri was elected president of the board of managers of the Rome and Murphy Memorial Hospitals, Troy, at the annual meeting of the organization at the institution on January 8. He succeeds Dr. Dan Mellen, who had been president for several years.

William Hughes was re-elected vice-president, and Mrs. Myra Wheat was returned as secretary.

President Gualtieri returned to the board as a member in December after an absence of a year, part of that time being spent with the Supreme Allied Headquarters in England.*

• • •

The resignation of Dr. Lester D. Bowman, of Jamestown, as City Physician, effective January 1, was announced on January 18 by Welfare Commissioner Carroll M. Hall at the regular meeting of the board.*

• • •

Five directors were elected to the Tarrytown Hospital Board of Directors at the annual meeting on January 15, and the entire group of officers was re-elected at the regular meeting which followed.

Officers re-elected were Frederick P. King, president; Ellery L. Wright, vice-president; Wallace Odell, secretary; John Hunter, treasurer.

Elected as directors for the class of 1947 for three-year terms were John J. Foley, Frederick P. King, Mrs. Charles Tod Newberry, Duncan Sutphen, Jr., and Julian Street, Jr. Other new members on the board, elected at the previous meeting, include Robert M. Akin, Jr., and Ellis D. Slater, class of 1946.*

• • •

* Asterisk indicates that item is from a local newspaper.

[Continued on page 554]

FIRST NATIONAL PUBLIC HEALTH NURSING DAY

Hundred
celebrated
Day, Janu
Your Publi
Does" The purpose was to focus attention on public-health nursing as a service for everyone and to increase public understanding of the part played by the public-health nurse in helping build better health for family, community, and nation

In a message issued in connection with this observance, Dr Thomas Parran, Surgeon General, United States Public Health Service, called attention to the fact that nursing service is needed to translate into practice almost every phase of public health Child hygiene, maternity service, venereal disease control and tuberculosis control, industrial hygiene, and even home and community sanitation programs are only a few of the services which, if they are to function effectively, must have the guidance and assistance of nurses To quote

"Although public health nursing originated because there was need for professional nursing care of the sick on a visit basis in the homes, some of our public-health administrators have lost sight of that important public-health nursing function Prevention and cure of disease are two sides of the same problem They are not two separate problems From the beginning public-health nurses have been concerned with the total health situation of the family, including sickness care, disease prevention, and health promotion The whole public health profession, including hospital and sanatorium administrators, must share this same point of view if optimum health is to be obtained for all during the postwar period"

In setting aside January 26 as Public Health Nursing Day for America, Doctor Parran added, health administrators and all other friends of nursing should dedicate themselves to promote

(1) The extension of public-health nursing services so that there shall be enough qualified nurses to meet the needs of all people, (2) A plan for the payment and distribution of those services on the basis of need, not on the ability of the individual to pay; (3) The establishment of employment policies which will insure qualified nurses full employment, adequate compensation and the security incident to retirement benefits —*Health News, Dec 25, 1944*

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[Continued from page 552]

A. Robert Munro was elected president of the Knickerbocker Hospital, New York City, at the annual meeting on January 16.*

• • •

Arthur J. Burch has been re-elected president of the Leonard Hospital, Troy, Board of Directors at a corporation meeting at the McKean Staff House.

Charles C. Freihofer was named vice-president; Henry J. Eckert, secretary; and Charles H. Mason, Jr., treasurer. Five of the six directors were retained with five-year terms, including R. C. Reynolds, F. E. Draper, Jr., Charles H. Mason, Jr., H. M. Grout, and Chester S. Millhouse.

John Clark was chosen to succeed the late Arthur B. Cobden, long a member of the board. Yearly reports were read and approved.*

• • •

Alexander C. Nagle, of Scarsdale, was re-elected president of the White Plains Hospital Board of Governors at the executive session which followed the annual meeting of the Hospital Association on January 18 in the clinic rooms. Others re-elected were A. J. Purdy, Paul Fox, and Edward M. West, vice-presidents; Otto C. Jaeger, secretary; and Everett J. Penny, treasurer.

Mr. Nagle presided at the association session. Committee reports were given and Dr. Edwin G. Ramsdell, chief of staff, supervised the presentation of panel medical reports. Allan C. Stevens was elected to the board of governors to fill the vacancy left by the resignation of George F. Thomas. The term expires December 31, 1947. Re-elected for another three years were Mr. Fox, Mr. Purdy, and Mrs. James N. Hynson of Scarsdale. It was reported that James R. Stevenson had resigned from the board during the year.*

• • •

Charles L. Davis, Frank H. Andrews, and Lt. Col. E. Boyd Fitzpatrick were re-elected to the Board of Directors of Olean General Hospital for the term expiring in January, 1948, at the forty-fourth annual meeting of the hospital held on January 16 at the supervisors' residence.

Following the meeting the board elected the following officers for the ensuing year: Allan B. Williams, president; Mr. Davis, vice-president; Mr. Andrews, treasurer; Miss Dorothy V. Weston, secretary; and Miss Catherine M. Songster, assistant secretary.

The present medical staff of the hospital was reappointed for the current year. It was noted that fourteen doctors on the staff are at present in war service.*

• • •

Resignation of Dr. Ursula K. Arnsdorff as a resident physician at General Hospital was announced at a meeting of the Board of Estimate and Apportionment.*

• • •

Dr. J. Lewi Donhauser was elected chairman of the attending staff of Albany Hospital at a meeting on January 23 at the hospital.

Also elected were: vice-chairman, Dr. Lyle A. Sutton; secretary, Dr. Arnold W. Pohl.

• • •

Reginald G. Coombe, vice-president of the Central Hanover Bank and Trust Company, has been elected president of the board of managers of Memorial Hospital, New York City. Alfred P. Sloan, Jr., chairman of General Motors Corporation, was elected to the board. Mr. Coombe succeeds Harry Pelham Robbins, president since 1933, who will continue as a board member.

• • •

After serving ten years as one of the Herkimer County coroners, Dr. Fred C. Sabin, of Little Falls, has submitted his resignation to Governor Dewey, and has been sworn in as county home physician and medical consultant to Welfare Commissioner William Dise.

The new appointment was made by Dise to replace Dr. L. L. Kelley of Middleville, who has been unable to continue his duties because of ill health.

It is understood that an appointment to fill the unexpired term of Dr. Sabin as coroner will be made by the governor.*

Newsy Notes

Departing from their usual custom of holding annual dinners at different dates, the Cayuga County Medical Society and the Auxiliary, City Hospital staff, and Mercy Hospital staff combined this year for a banquet at the Osborne Hotel. Following the dinner, E. D. Vandeboncoeur, radio news commentator, addressed the doctors and their guests on phases of the World War of special interest to them. Several Cayuga County medical men now in military service were present, including Dr. Barnes, Dr. Charles T. Yarington, Dr. Joseph Graceffo, and Dr. Frank A. Namoc, a dentist. Also present as guests were wives of some of the Cayuga County physicians now in the service.

• • •

Early action is expected to be taken by Congress on the Joint Resolution providing for the leasing of the former Neponsit Beach Hospital for Children, Queens, by the U.S. Public Health Service, for a hospital for merchant marine patients. Negotiations are reported to be near completion.

The proposal, which has had the approval of Surgeon General Parran of the U.S. Public Health Service, the Federal Security Agency, the Federal Board of Hospitals, and the Federal Budget Director, will provide the Rockaways with its first large government supervised hospital.

• • •

Massena Memorial Hospital in its first year of operation admitted 1,433 patients, and throughout 1944 had an average of 38 plus patients daily, Miss Mildred Higgs, R.N., superintendent, reported on January 12.

Miss Higgs' report covers the period from January 4, 1944, the day that Massena's new hospital opened, to January 1, 1945.

ANNOUNCEMENT

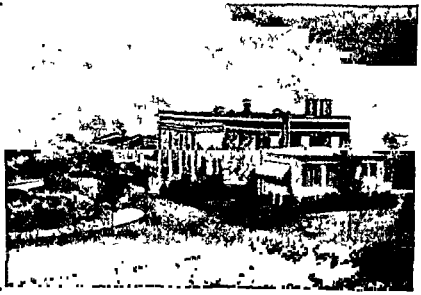
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Honor Roll

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Member Physicians in the Armed Forces

(By County Societies)

Supplementary List*

Broome County
Snow, Herman B. (Maj.)

Cortland County
Runfola, Anthony V. (Lt.)

Kings County
Baum, Erwin C. (Lt. Comdr.)

Monroe County
Hague, James D. (Lt.)

New York County
Fleischer, Walter E. (Lt. Comdr.)
Helmick, Perry L. (Lt. Comdr.)
Ladany, Emory (Capt.)

Suffolk County
Garret, Robert T. (Capt.)

Westchester County
Begenau, Vernon G. (Capt.)

* This list is the thirtieth supplement to the Honor Roll published in the December 15, 1942, issue. Other supplements appeared in the January 1, January 15, February 15, March 1, March 15, April 15, June 1, July 1, August 1, September 1, October 15, November 15, December 15, 1943, January 15, February 1, February 15, March 1, May 1, May 15, June 1, July 1, July 15, August 1, September 1, October 1, November 1, December 1, 1944, January 1, and February 1, 1945, issues.—*Editor*

ANESTHETIC CASUALTIES

The struggle to eliminate anesthetic deaths by more skillful use of a wider variety of agents is as old as anesthesia itself. It was first directed to chloroform, later to more precise use of newer agents which science devised for specialized employment. Undoubtedly each of these newer agents excels in certain definite conditions in spite of its increased hazard. Likewise, though cesarean section affords a relatively safe method of delivery where normal labor is contraindicated, no obstetrician, disregarding its higher mortality, would adopt this operation for routine delivery. Is not the same principle applicable to anesthesia? Safety rather than preference or convenience should determine the choice of anesthetic agent.

Judging from recent reports by Gillespie, Waters, Hanson, and Stealy, Elam, and the Medical Department of the U.S. Army, the frequency of anesthetic accidents is altogether too high. According to Elam's conclusions,[1] it were better to have borne the ills we had with chloroform than to have flown to others that we knew not of. He cites various statistics which show a mortality of 0.25 to 0.5 per cent charged to spinal anesthesia, with double the rate for local over general anesthesia, and with barbiturates leading the list. The U.S. Army found that the death rate attributable to pentothal was six times higher than that of all other anesthetic agents. Efficient though cyclopropane may be, Flagg says of it, "Let us look on cyclopropane as chloroform dispensed in gaseous form, under pressure."

At the recent American Medical Association meeting in Chicago the Section on Anesthesia took a step that should be most helpful in reducing these anesthetic casualties. Basing its action upon experience of groups in Philadelphia and Cleveland, organized to study reports on anesthetic deaths, the Section recommended that the American Medical Association favor formation of similar groups throughout the country. The object of such studies is educational rather than critical. Among obstetricians a similar attack has contributed definitely to reduction of maternal mortality. Hingson suggests that recommendations for changes in procedure should be based on at least fifty cases. In groups organized to study reports of all anesthetic deaths discussion will elicit the experience of the entire group. In this way the individual anesthetist would benefit from combined experience with large numbers of cases. Routine administration of anesthetic agents with attending increased mortality would therefore be avoided. Safety should surmount convenience.—*Editorial by Howard Dittrick, M.D., in Anesth. & Analg., Sept.-Oct., 1944*

[1] Elam, John: Brit. J. Anaesth. 19:1 (Jan.) 1944.

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Woman's Auxiliary

To the Medical Society of the State of New York

County News

Broome County. The January meeting of the Woman's Auxiliary of the Broome County Medical Society was held at Lourdes Hospital, Binghamton. Mrs. Manuel M. Monserrate presided at the business session.

Mrs. William E. Low, program chairman, introduced the three speakers of the evening. Lt. Comdr. John Kane, of the Navy, home on leave, gave an account of his experiences in the Pacific Theater. Life aboard an aircraft carrier was described by Aviation Ordnanceman Second Class Lawrence Littig, home after fifteen months aboard a carrier in the Pacific. Pfc. Jack Mitchell, USMC, told of conditions in the South Pacific war zone. Thomas Judge, a student in Johnson City High School, sang two solos, and refreshments were served.

The committee in charge was headed by Mrs. Mark Williams, assisted by Mrs. John Burns, Mrs. William Behan, Mrs. Waldemar Boldt, Mrs. Albert Baumann, Mrs. Ralph Goudey, Mrs. Milton Carvalho, Mrs. Harold W. McNitt, Mrs. John D'Arecca, and Mrs. Leonard J. Flanagan.

Columbia County. The quarterly luncheon meeting of the Woman's Auxiliary to the Medical Society of Columbia County was held on January 23 at the General Worth Hotel, with Mrs. Hugh G. Henry, of Germantown, presiding.

Following the luncheon, Mrs. Henry presented Mrs. Luther H. Kice, of Garden City, chairman of legislation of the Woman's Auxiliary to the American Medical Association, who gave a most vigorous and enlightening talk on the duty of members of medical auxiliaries to combat socialized medicine, and in all ways to acquaint themselves with all legislation appertaining to the practice of medicine. Saying that the welfare of man is the work of the medical profession, the speaker stressed the great work the "medics" are doing in the present war, work in which there is no glory, work which is often dirty and hard, but work which results in the saving of ninety-seven out of every one hundred wounded men.

A brief business session followed Mrs. Kice's address. Mrs. Henry appointed the following nominating committee: Mrs. H. J. Noerling, Mrs. R. L. Bowerhan, and Mrs. J. L. Edwards. The Auxiliary voted to send its annual contribution of $10 to the Physician's Home in New York City.

Erie County. A special meeting of the Board of Directors was called by the President, Mrs. William Rennie, on January 9 in the board room of the Medical Society of the County of Erie, to outline plans for the new year. The first regular meeting of the Board of Directors was held at 10:30 A.M. on January 30, in the same room. We are very grateful for the opportunity of holding our meetings there.

The Red Cross Knitting Group was entertained at a luncheon on January 18 in the home of Mrs. Fraser D. Mooney. Cohostess was Mrs. Arthur F. Glaeser. Six afghans have been completed during the past year and two more are nearing completion. The next hostesses will be Mrs. Jesse G. Levy and Mrs. Fred S. Hoffman. We hope to triple the number of afghans this year, under the guidance of Mrs. Louis Fuchs, chairman of the War Service Committee, and Mrs. Walter L. Machemer.

Thank you, members of the Erie County Medical Society, for your cooperation in helping us triple our quota in the Sixth War Loan Drive.

We could not have accomplished this without the assistance of the Auxiliary members who were in attendance at the Bond Booth in the Buffalo General Electric Building. We salute the women who did the work. Mrs. Walter Goodale, chairman, Mrs. Francis O'Gorman, cochairman, Mrs. George E. Slotkin, Mrs. Joseph W. Madden, Mrs. Arthur C. Hassenfratz, Mrs. Harold B. Johnson, Mrs. Kenneth G. Jahraus, Mrs. Lee R. Sanborn, Mrs. Louis A. Kaiser, Mrs. John D. Naples, Mrs. James G. Fowler, Mrs. Wilhelm H. Brauns, Mrs. William H. Jones, Mrs. Lawrence J. Radice, Mrs. Frank N. Potts, Mrs. Harry C. Guess, Mrs. John A. Post, and others.

The war is not over and we are continuing to man the booth for the duration and six if necessary. This is a vital duty on the home front, and let us be generous in our cooperation to our new chairman, Mrs. Lee R. Sanborn, and cochairman, Mrs. Frank N. Potts. They have a very workable plan whereby the members volunteer a half day a week for one month out of the year. This isn't too much to ask of any member. Some members work all through the year.

In this way, the booth will be covered at all times and at the end of the year it will give us all an opportunity to say, "I helped in the war effort."

The first regular 1945 meeting of the Woman's Auxiliary to the Medical Society of the County of Erie was an introductory luncheon in the Chinese Room of the Hotel Statler, at 12:30 P.M. January 30, honoring the New York State presidents, Dr. Herbert H. Bauckus and Mrs. Carlton E. Wertz, the county president, Dr. Abraham H. Aaron, and the other members of the Advisory Council, Dr. Louise Beamis Hood, Dr. Alfred H. Noehren, and Dr. Arthur F. Glaeser.

Hostesses were the past presidents of the County Auxiliary, Mrs. Arthur F. Glaeser, Mrs. Harold B. Johnson, and Mrs. Patrick J. Hurley. The chairman of the House, Mrs. Frederick E. Sperry, had as her aides Mrs. Daniel Stedem and Mrs. John A. Metzen.

After the luncheon there was a preview of Maj. Clark Gable's recent film, "Combat America," and an introduction of the Auxiliary's new Board of Directors.

Nassau County. The regular meeting was a joint meeting with the Nassau County Medical Society at Mercy Hospital, Rockville Centre, on January 30 at 9 P.M. Dr. Charles Albert Gordon, F.A.C.S., gave a report of the Maternal Welfare Committee of Kings County, and Dr. George Borden Granger, F.A.C.S., gave a report of the Maternal Welfare Committee of Nassau County. The Auxiliary served refreshments after the meeting.

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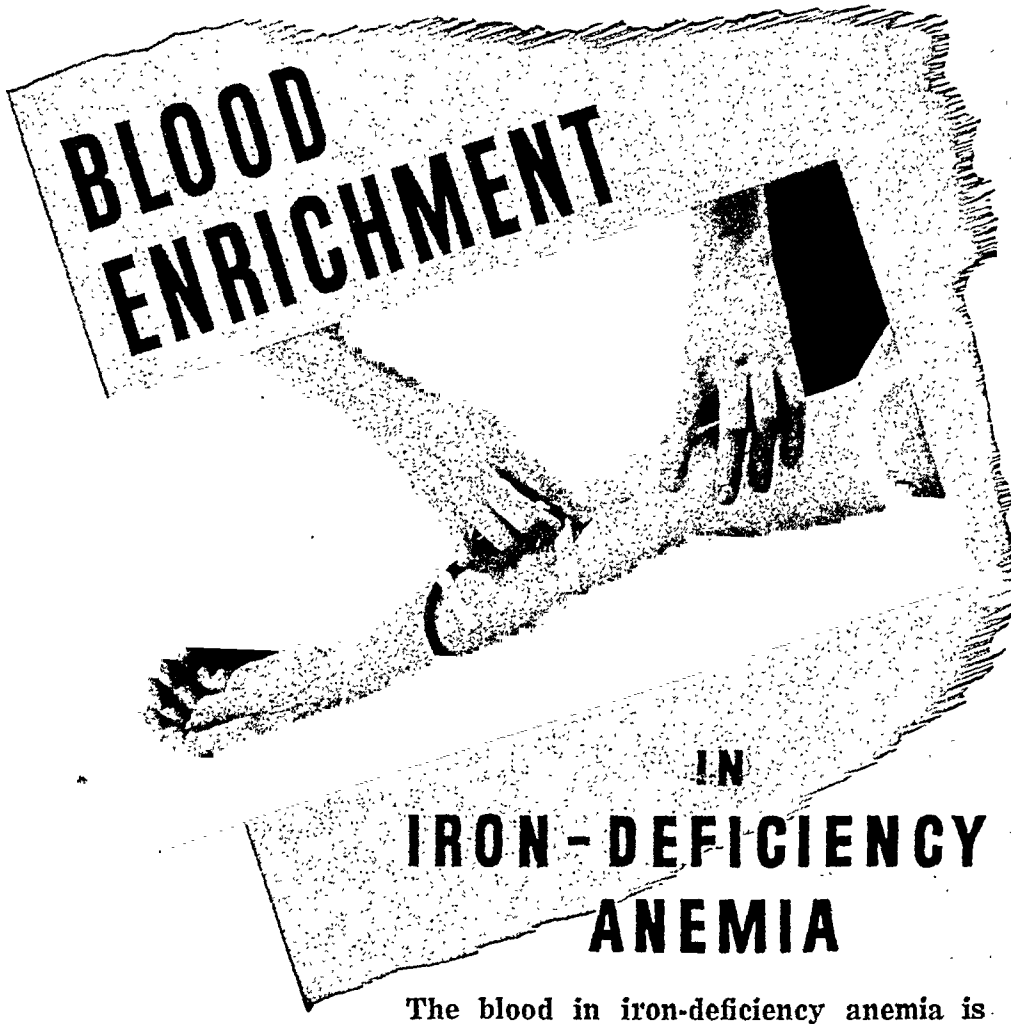
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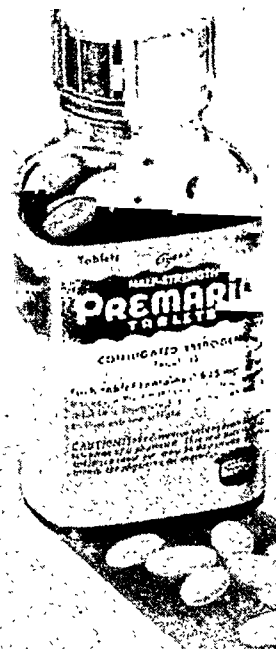
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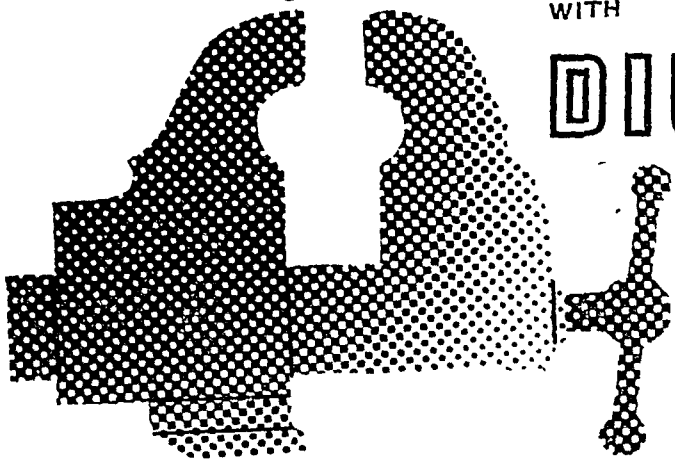
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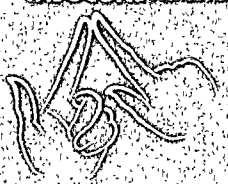


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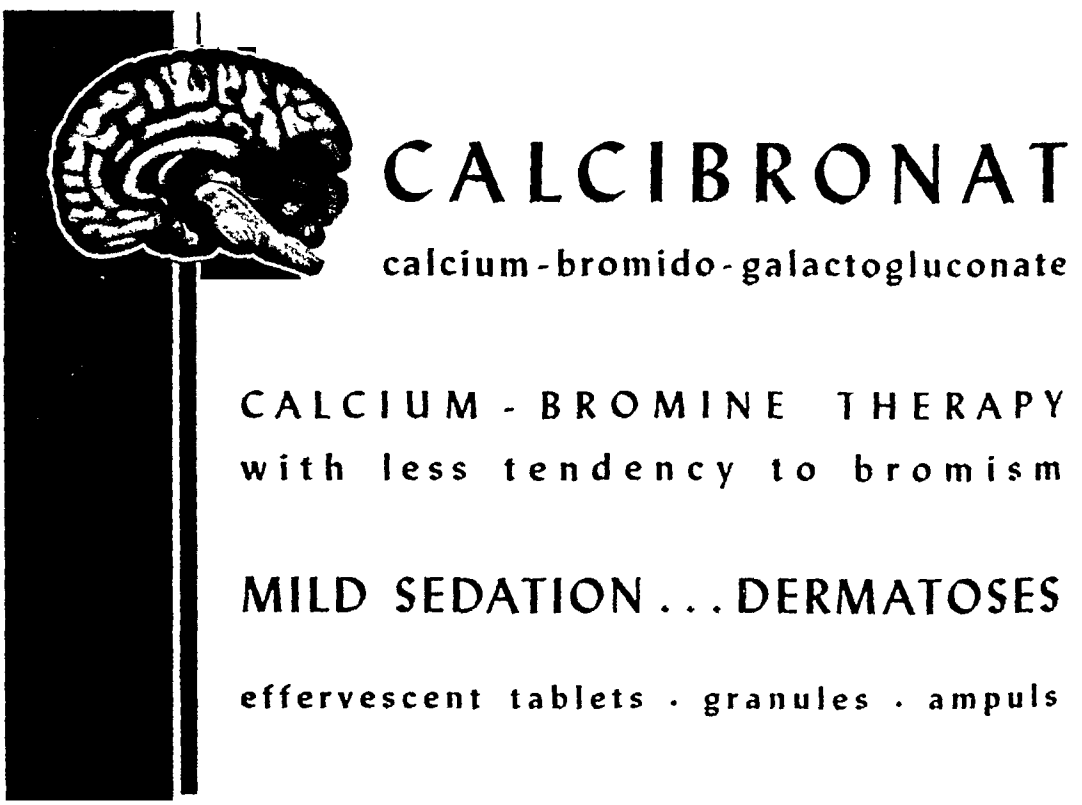
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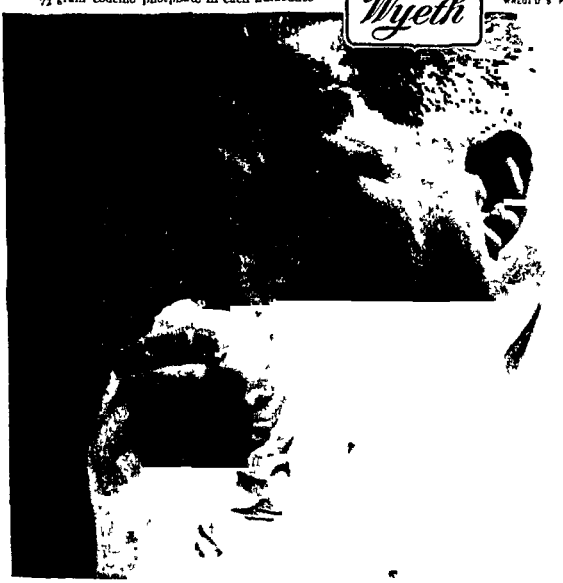
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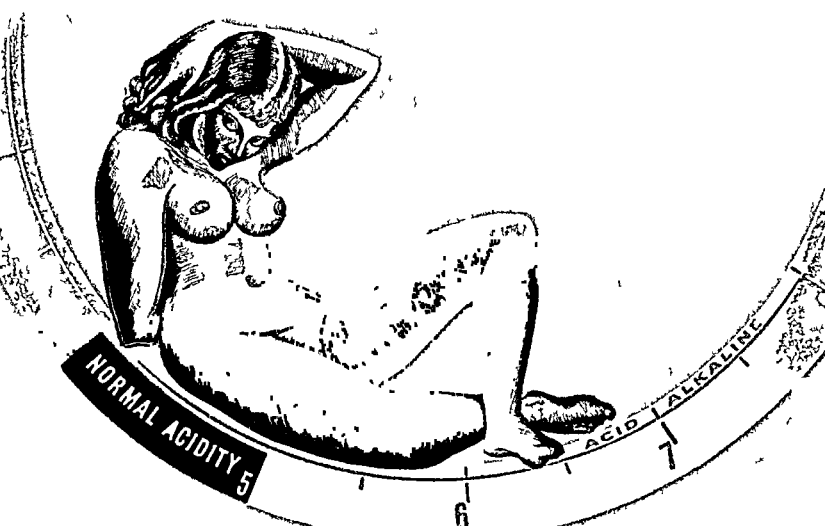
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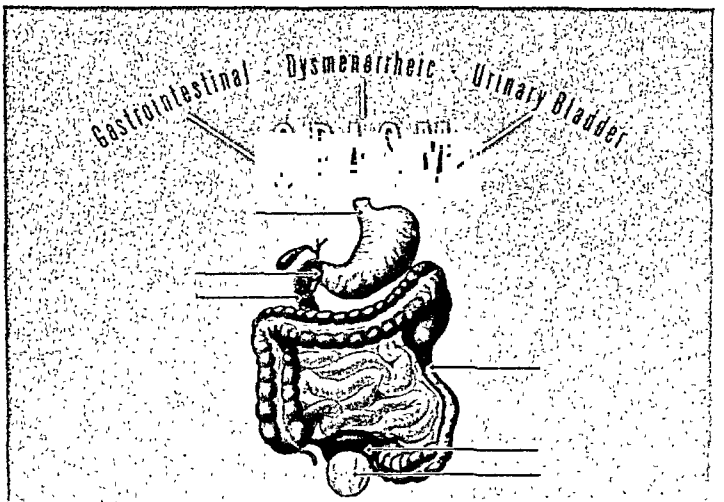
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The new Searle Research Development—Pavatrine—is unique among spasmolytic agents by reason of its combined *neurotropic* and *musculotropic* actions.

To this has been added the mild, *central nervous sedation* of Phenobarbital to secure effective symptomatic relief in—

Gastrointestinal spasm (the "irritable bowel")
Uterine hypertonicity of dysmenorrhea
Urinary bladder spasticity

Each sugar-coated tablet contains 125 mg. (2 gr.) Pavatrine (Searle) with 15 mg. (¼ gr.) Phenobarbital. Supplied in bottles of 100 and 1000.

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Pavatrine is the registered trademark of G. D. Searle & Co.

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Powerful hepato-biliary stimulant and digestive aid, Concentrated Intestinol speeds relief in biliousness, intestinal indigestion, and recurrent flatulence. Combines pure bile salts, concentrated Pancreatin, Duodenal Substance and Charcoal. Bottles of 50 and 100 Tablets.

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Donnatal RELIEVES SPASM WITH TENSION



In spastic disorders of functional origin—when the chief aim of therapy is to provide both central and peripheral action *with safety*—Donnatal may be employed with utmost confidence.

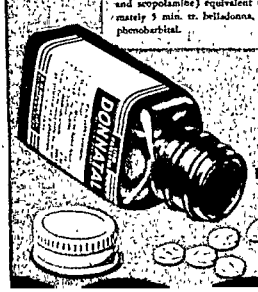
The outstanding efficacy of Donnatal is the result of a perfectly balanced combination of the principal belladonna alkaloids (hyoscyamine, atropine and scopolamine), in fixed proportions, together with phenobarbital. Thus Donnatal provides:

1. The advantages of the natural belladonna alkaloids *without toxicity.*
2. Effective *non-narcotic* sedation.
3. Marked pharmacologic potency with small dosage at *notably less cost.*

The synergetic implementation of Donnatal makes it an ideal antispasmodic and sedative in a wide range of spastic disorders—such as spasm incident to gastric and duodenal ulcers, pylorospasm, spastic constipation, urogenital spasm, cardiospasm, autonomic nervous disturbances, respiratory disturbances, Parkinsonism, vomiting of pregnancy, and other spastic manifestations.

AVAILABLE: In bottles of 100 tablets.

FORMULA: Each tablet contains belladonna alkaloids (hyoscyamine, atropine and scopolamine) equivalent to approximately 5 min. tr. belladonna, plus ¼ gr. phenobarbital.

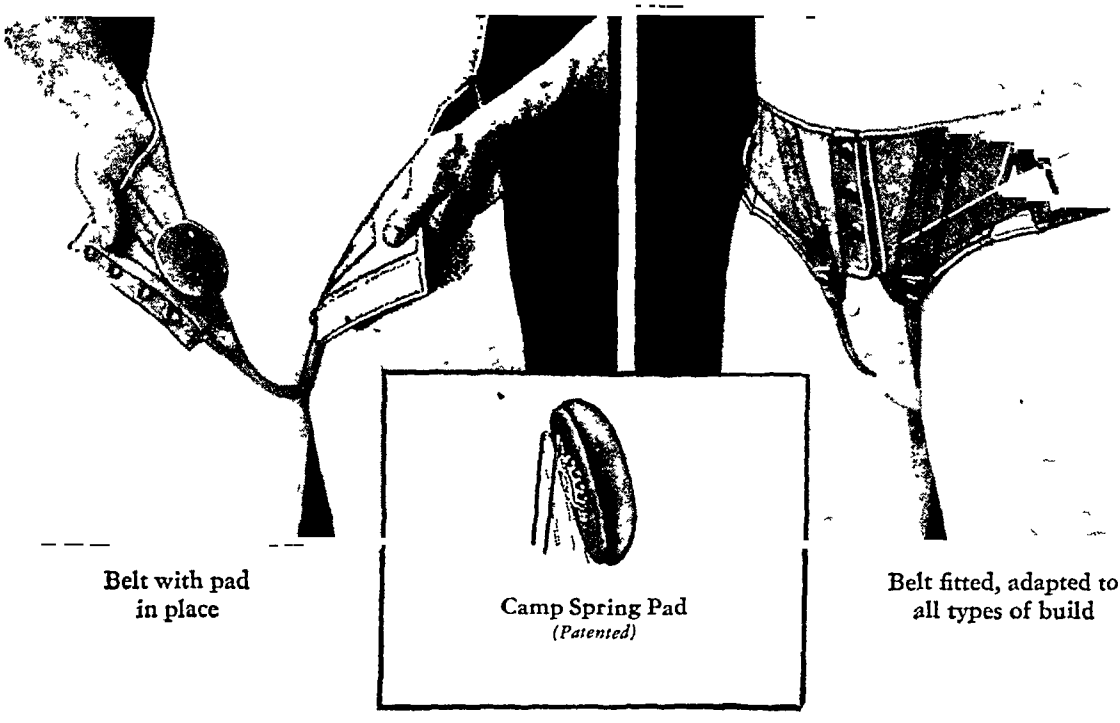


FOR RELIEF OF SMOOTH MUSCLE SPASM

℞ DONNATAL 'Robins'

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CAMP Belt for Inguinal Hernia



Belt with pad in place

Camp Spring Pad
(Patented)

Belt fitted, adapted to all types of build

IN patients with indirect inguinal hernia of small or moderate size, this belt with pad has proved successful in many instances in holding the hernia within the abdominal cavity. The comfort of a *belt* about the pelvic girdle is greatly appreciated by the patient.

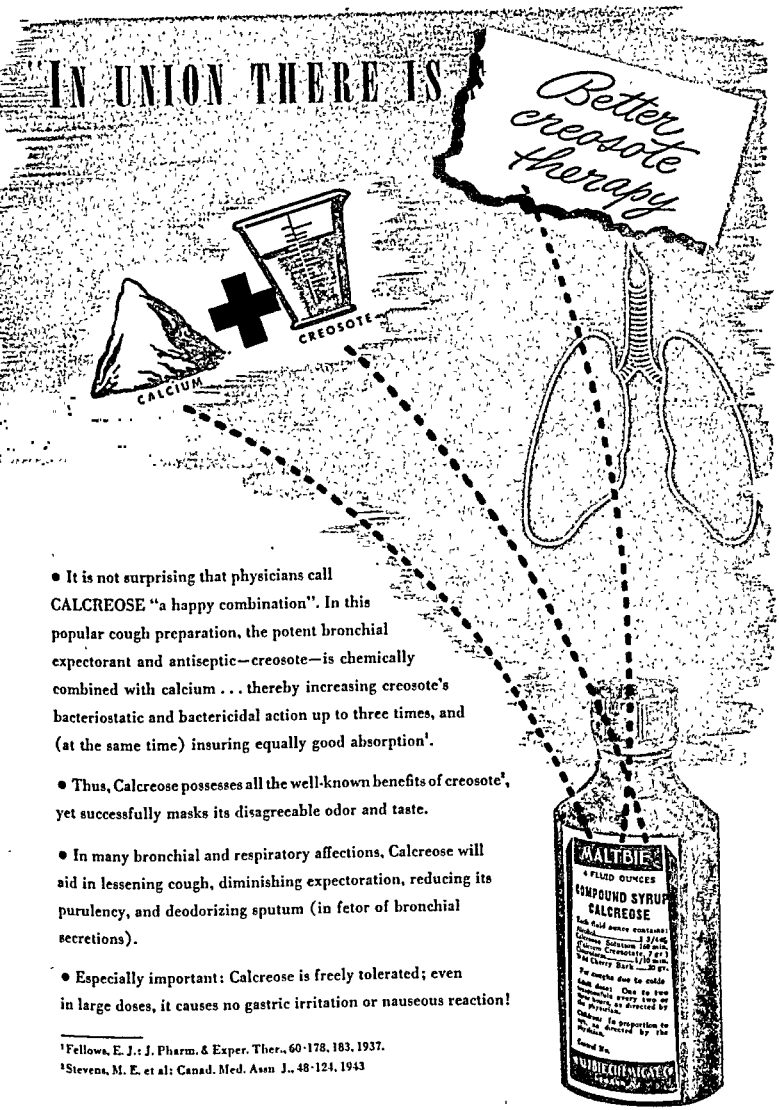
The CAMP adjustable spring pad for use with the belt is equipped with prongs of piano wire. The strong flexible prongs fit firmly in the casings of the belt. Pads are available in varying shapes and depths.

The CAMP adjustment of the belt courses along the groin over the pad, hugging it in and up for the protection of the internal ring.

Surgeons who wish some protection over the area after operation will find this belt of particular advantage because the adjustment allows varying degrees of firmness about the lower abdomen.

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• It is not surprising that physicians call CALCREOSE "a happy combination". In this popular cough preparation, the potent bronchial expectorant and antiseptic—creosote—is chemically combined with calcium . . . thereby increasing creosote's bacteriostatic and bactericidal action up to three times, and (at the same time) insuring equally good absorption[1].

• Thus, Calcreose possesses all the well-known benefits of creosote[2], yet successfully masks its disagreeable odor and taste.

• In many bronchial and respiratory affections, Calcreose will aid in lessening cough, diminishing expectoration, reducing its purulency, and deodorizing sputum (in fetor of bronchial secretions).

• Especially important: Calcreose is freely tolerated; even in large doses, it causes no gastric irritation or nauseous reaction!

[1]Fellows, E. J.: J. Pharm. & Exper. Ther., 60:178, 183, 1937.
[2]Stevens, M. E. et al: Canad. Med. Assn. J., 48:124, 1943

CALCREOSE

DOSAGE: 2 tablets Calcreose 4 gr.; or 1 to 2 tspfl. Compound Syrup Calcreose, as preferred.

AVAILABLE: Tablets Calcreose 4 gr., brown coated, in bottles of 100, 500 or

THE MALTBIE CHEMICAL COMPANY



"From the point of view of preventive medicine, the evidence is conclusive that there is great opportunity to improve the health of the nation by increasing the vitamin B complex content of the diet of a considerable part of our population."[1]

'Tabloid' Yeast Concentrate contains the *entire* B complex, thus providing in addition to well-established factors those lesser known components whose physiological roles are important but difficult to define accurately.

Although 'Tabloid' Yeast Concentrate is prepared from selected brewers' yeast, it does not contain fresh yeast's active enzymes or live cells which may cause intestinal fermentation, abdominal discomfort.

1. Sebrell, W. H., Ann. Int. Med. 15:953, 1941.

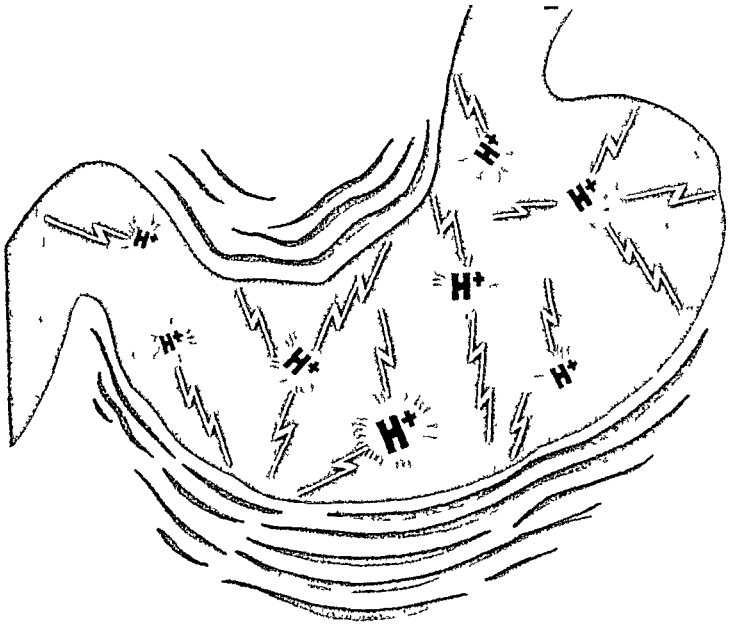
Preparation: 'Tabloid' Yeast Concentrate, gr. 4 (0.26 gm.) Sugar coated. Bottles of 100 and 500. Dosage: Depending on the degree of Vitamin B complex deficiency—1-3: t. i. d., a.c.

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FORMS an adsorptive, protective medium which buffers excess acidity without alkalosis or acid rebound

Provides prompt, prolonged relief from pain due to peptic ulcer, heartburn, gastric hyperacidity and alcoholic gastritis

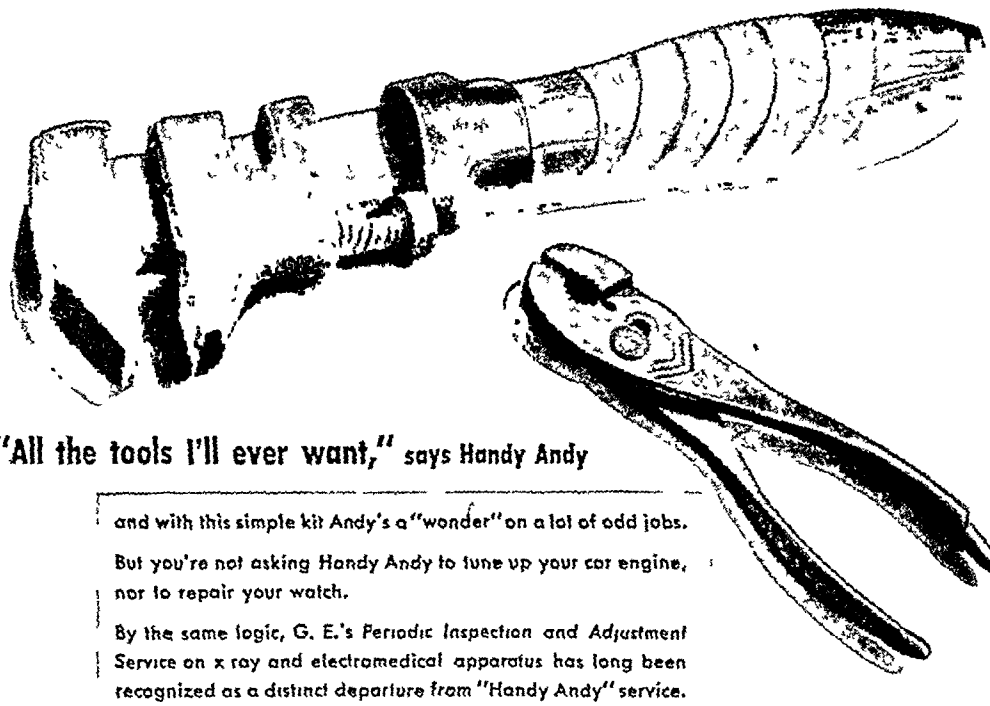
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LUDOZAN

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DOSAGE: Average dose for adults is 3 to 6 tablets (5 gr.) or 4 to 8 teaspoonfuls elixir daily; for children, 1 to 4 tablets (2½ gr.) or 1 to 4 teaspoonfuls elixir daily

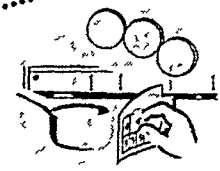
FURTHER FACTS FOR YOUR REFERENCE FILE AND CLINICAL SAMPLES WILL BE GLADLY SENT ON REQUEST

*Reznikoff, P and Gorbel, W F J Clin Investigation 16 547, 1937

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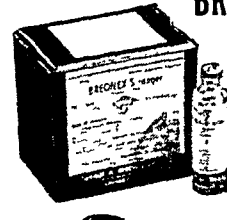
As is commonly observed by physicians, persons with one deficiency syndrome will likely have associated deficiency diseases, these deficiencies often being related to the vitamin B complex group. And, too,



the clinical picture of hypovitaminosis is generally marked by an inadequate diet, because of reasons often uncontrollable, such as vitamin losses from excessive cooking, improper storage, transportation, point rationing, and from high costs of food. However,



fatigued, listless patients with ill-defined symptoms involving nerves and general metabolism have been less of a problem since forceful vitamin B complex is readily available. Therefore, we suggest the physician's versatile co-worker—vitamin B complex-Breon, in three convenient forms—



BREONEX-STRONGER

In vials for various doses intramuscularly. Each cc contains thiamine 25 mg., riboflavin 2.5 mg., pyridoxine 2 mg., nicotinamide 100 mg.



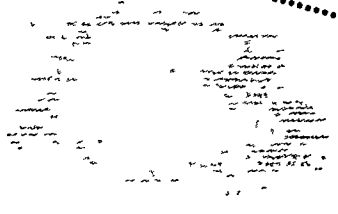
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compressed in the shape of capsules and sugar coated; each caplet contains thiamine 1 mg., riboflavin 1 mg., pyridoxine 0.03 mg., nicotinamide 6 mg.



BECOMCO

A potent liquid, palatable as a chocolate sundae. Each 5 cc contains: thiamine 3 mg., riboflavin 2 mg., nicotinic acid 10 mg., pyridoxine 1.5 mg., pantothenic acid 1 mg.



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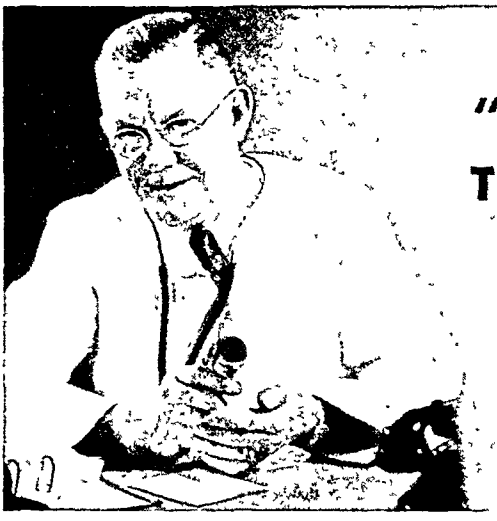
REFERENCES — 1 West. J. Surg. & Gyn., 51.150, April, 1943 2 Clin Med & Surg., 46 327, August, 1939 3 Med. Rec., 155 316, 1942. 4 Crossen, H S and R. J: Diseases of Women, C. V Mosby Co., St. Louis, 9th ed., 1941.

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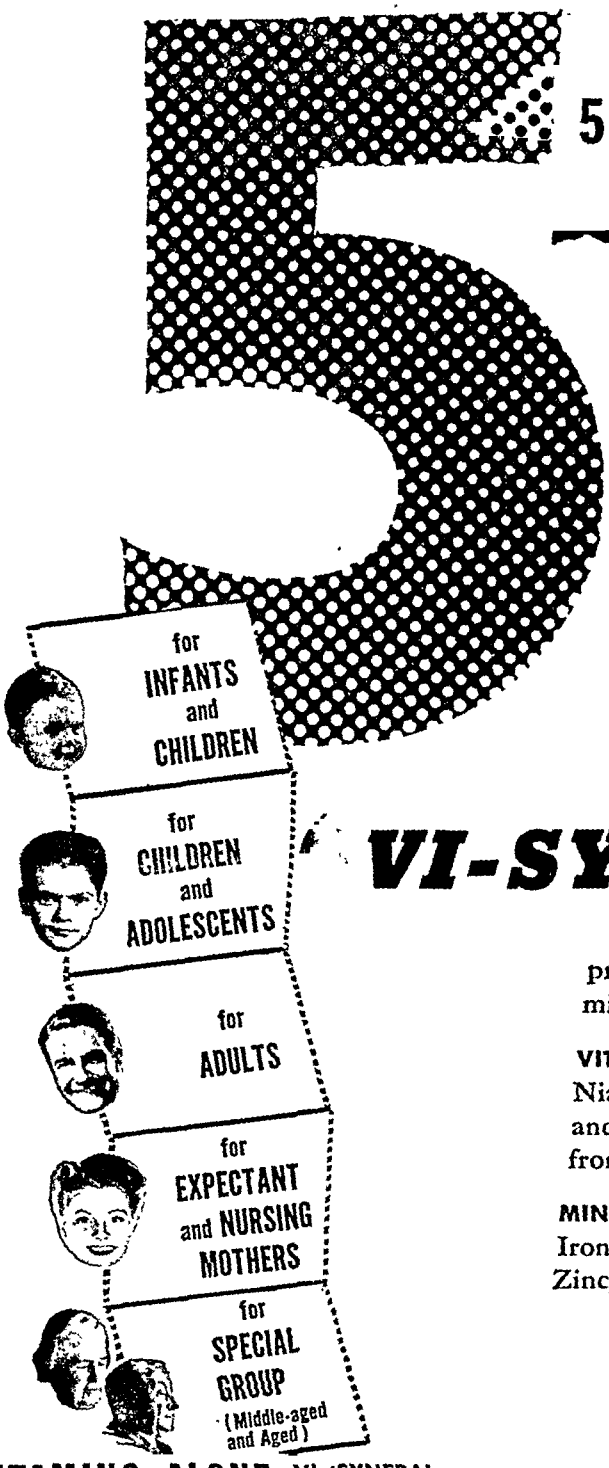
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provides a safety margin of vitamins, fortified with minerals . . .

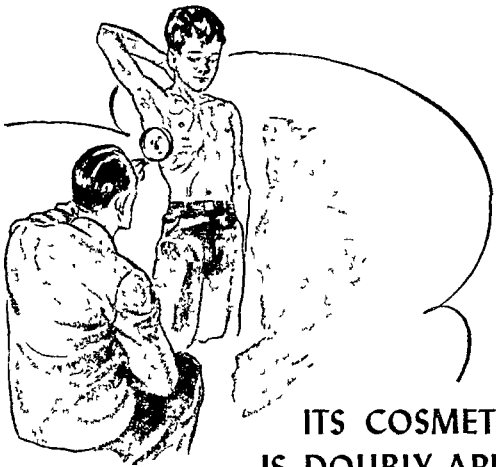
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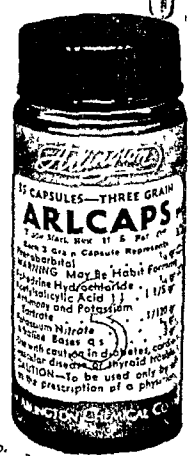
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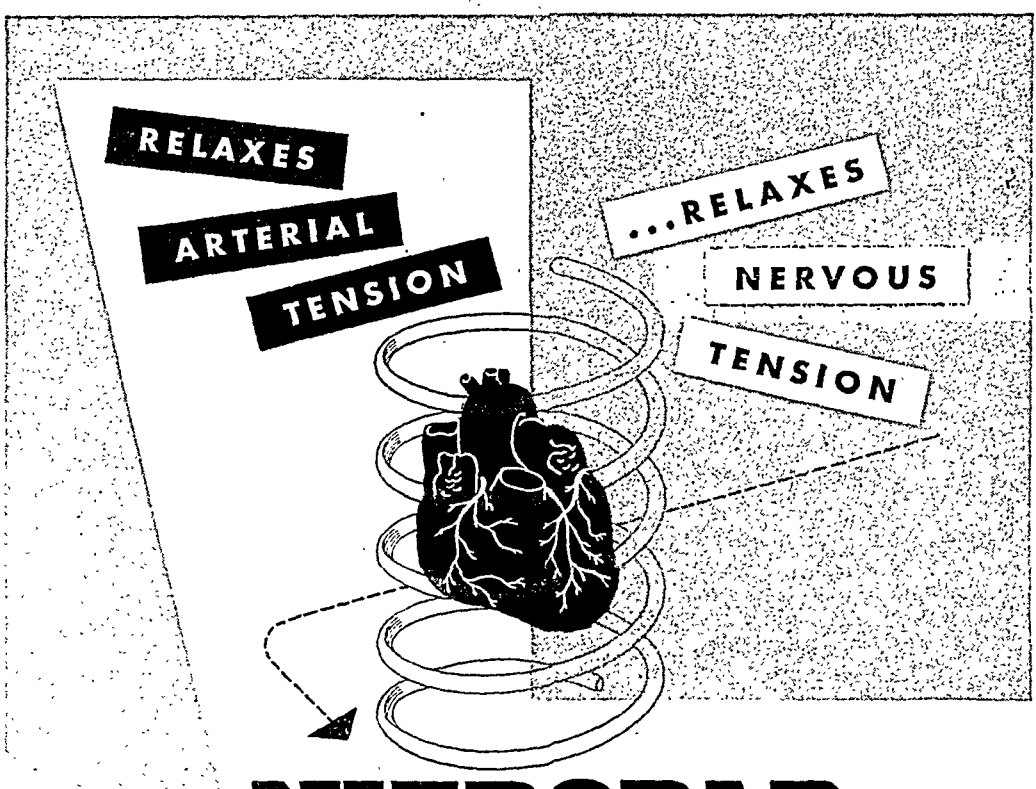
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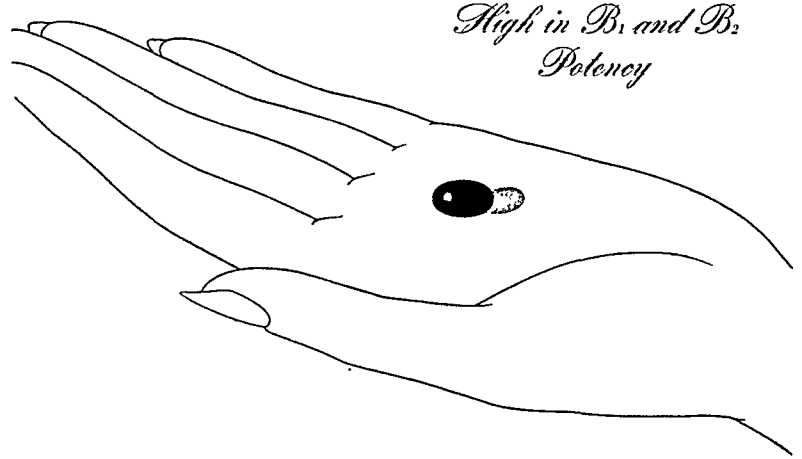
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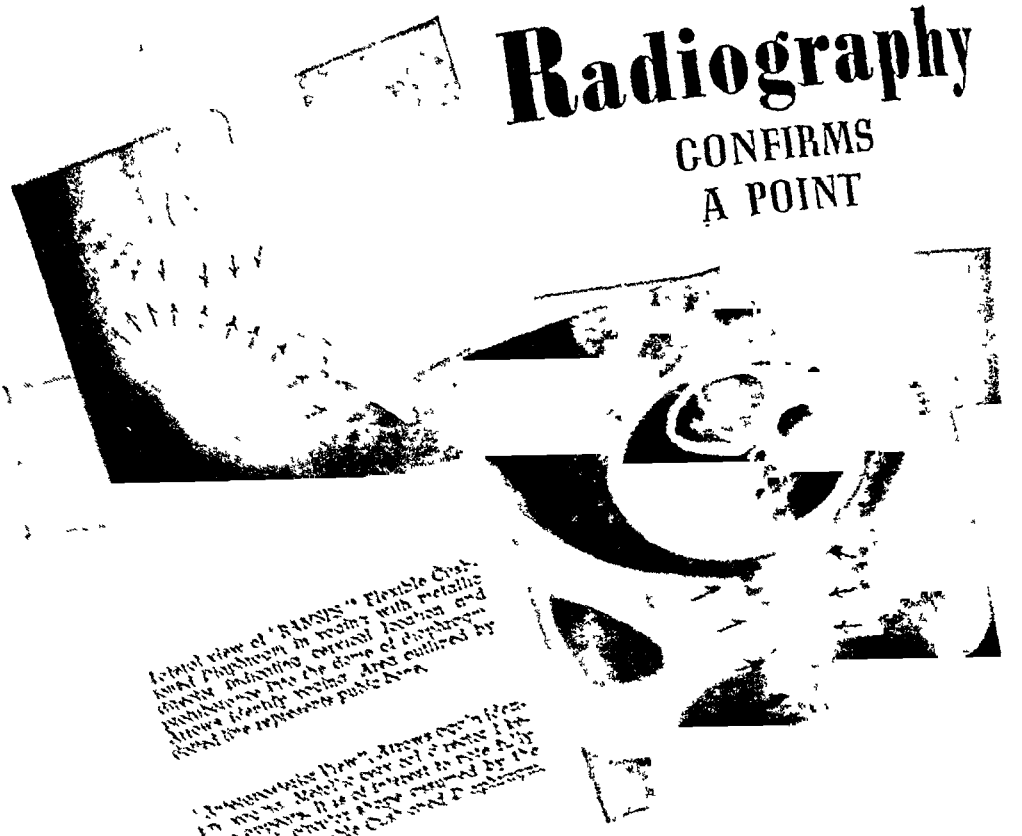
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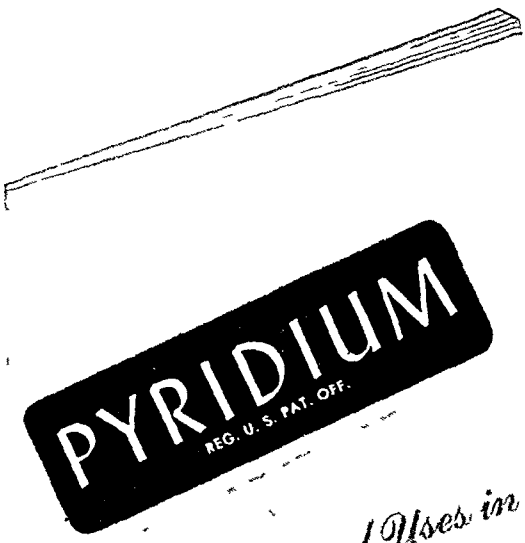
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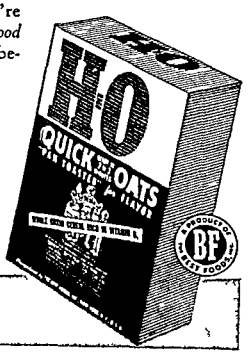
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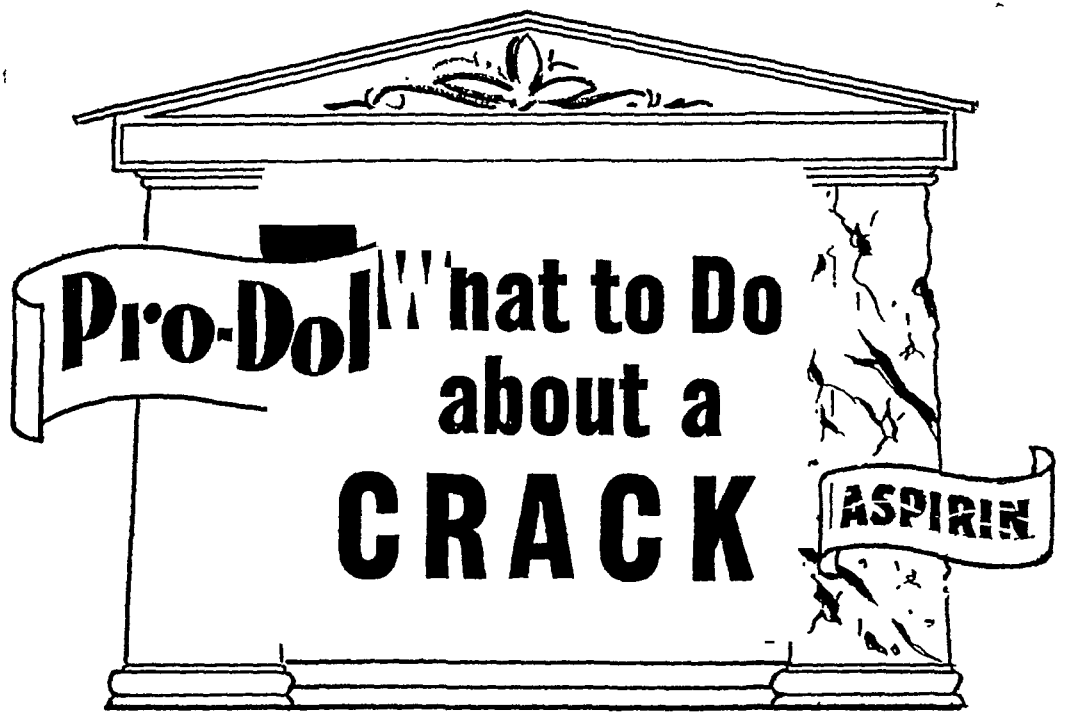
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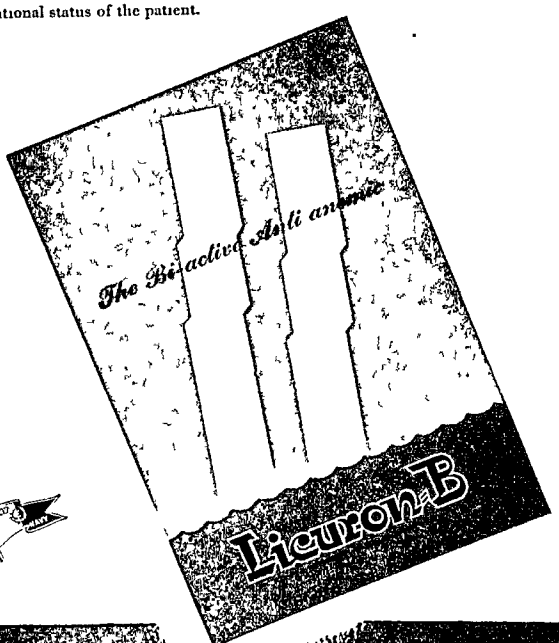
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VOLUME 45 MARCH 15, 1945 NUMBER 6

Editorial

Standards of Medical Practice

There are now in the legislature awaiting action bills[1] which, in the opinion of the editors of this JOURNAL would lower the standards of medical practice in the State of New York. These bills permit the Board of Regents to reinstate a license for the practice of medicine of a person convicted of a felony if he has received a certificate of good conduct from the parole board.

The law governing the practice of medicine now permits the Regents to revoke the license of a person convicted of a felony under Section 1264, Article 48, of the Education Law. This is not mandatory. However, under Section 1263 it states, 'Any person who during the time his license to practice medicine shall be suspended or revoked, or who shall be convicted of a felony shall practice medicine, shall be guilty of misdemeanor." It is our understanding of the law that a person who is convicted of a felony, whether his license be revoked by the Regents or reinstated by them, would be guilty of a misdemeanor each time he practices. It is for this reason that the Regents, recognizing that the law is permissive in regard to the revocation of a license, have always revoked the license, as the person could not practice without committing a crime.

Section 1251 states in part as follows, " nor shall any person be licensed to practice under this article who has ever been convicted of a felony by any court, or whose authority to practice is suspended or revoked by the department." The same section states that "If a person convicted of a felony is subsequently pardoned by the governor of the state where such conviction was had, or by the President of the United States, the Regents may, in their discretion on application of such person, and on the submission to them of satisfactory evidence, restore to such person the right to practice medicine in this State."

It will be noticed from the above section that the Regents have the permission to restore a license on the pardon of the Governor or the President at the present time. This same section under the old Public Health Law gave the same permission but had the provisionary clause, "provided the felony was not in connection with the practice of his profession." It will be noted also,

[1] *Senate Int 60—Coudert* and *Assembly Int 67—Milmoe*

under this section of the law, that a person who has been convicted of a felony could not be admitted to the licensing examination or obtain a license for the practice of medicine. One of the requirements for admission to the medical licensing examination is evidence of good moral character. That in connection with the above requirement of the statute would prohibit a person who had been convicted of a felony from being licensed. It would appear, then, that we are gradually lowering standards for the practice of medicine in regard to a person who has been convicted of a felony. At first the Regents did not have the permission to restore a license if the felony had been in connection with the practice of medicine, even on full pardon. This law would seem to put the Regents in a difficult position, as these applications could be made to them on the basis of a certificate of good conduct from the parole board. It would mean that a convicted felon who had previously been licensed to practice medicine could obtain such a restoration when the person who had not been licensed could never obtain a license. The question also arises as to whether a physician who has been convicted of a felony could practice medicine without committing a crime even though his license has been restored, unless the portion of section 1263 mentioned above be amended.

While it does not appear probable that any considerable volume of applications to the Regents under the proposed change in the law would arise to disturb the normally somewhat placid course of their deliberations, who can say that it may not? The mere fact of the introduction of the bills is in itself an invitation to submit such applications, should they be passed. It seems to us to be unfair discrimination between physician-felons.

It may have been assumed by the proponents of the legislation that the physician who, before his conviction, had not been licensed, never intended to practice anyway. But in our opinion the argument would be scarcely tenable. Physicians, like anyone else, have a right to change their minds. A pardoned unlicensed felon should at least be accorded the privilege of applying for examination on a parity with the previously licensed felon—that is, if it seems desirable to have pardoned felons in the ranks of the profession in this State at all.

Circular No. 101 of the New York State Bar Association discusses a bill passed in the Senate and the Assembly as part of the current "rehabilitation" program of the legal profession whereby a lawyer disbarred for felony can be reinstated as a practicing attorney. In voicing disapproval of the measure the following considerations are set forth in the Circular, in part:[2]

1. The public, in dealing with any lawyer, is entitled to rely upon the fact that he has never been convicted of a felony.

2. The honor of a great profession demands its members to be above reproach.

3. The fact that some lawyers, still in practice, may actually have committed acts that, if revealed, would result in their conviction as felons is no argument for setting up a procedure whereby those felons who have been cast out will again be put in position to wreak harm upon their clients.

4. A former lawyer who has been discharged from prison can still earn a living in thousands of ways, just like any other man who is discharged from prison.

5. When a man adopts the legal profession and takes his oath he knows what is the uniform penalty if he is ever untrue to that oath.

6. When a lawyer is being tempted, the knowledge that discovery will mean that he can no longer be a lawyer as long as he lives will operate as a stronger bar to aid him in overcoming the temptation than would the hope that he might be able to practice again despite the contemplated felony.

7. The public would gradually get the idea that many lawyers were former convicts. The entire profession would be cheapened and the honest lawyers would be harmed.

8. A profession that demands honesty and character in the highest degree also demands an inexorable rule that he who has been unfaithful shall go forth from the hall of justice and seek his living in an occupation where trust is not the indispensable condition of his activity.

9. Better far that some repentant convict be required to earn his living as do millions of his fellowmen than that a profession whose honor is a matter of public concern become sprinkled with men whose character has not met the test of life.

If for lawyer one reads physician, this sums up the argument against lowering professional standards, and against the bills *Senate Int. 60* and *Assembly Int. 67*.

[2] Jan. 31, 1945, p. 350.

Vocational Rehabilitation

On April 1, 1944, there was issued by the Office of Vocational Rehabilitation of the Federal Security Agency a *Manual of Policies*, a pamphlet of 27 pages setting forth the requirements and recommendations for physical restoration services for State Boards of Vocational Education and State Agencies for the Blind

This was followed on the same date by Supplement No 1, dealing with purchase of hospital care, and on June 15, by Supplement No 2, on suggested provisions for agreements with particular hospitals The whole program, both State and Federal, has not been as yet comprehended by most physicians, and comment thereon will be reserved by this JOURNAL until a later date

However, at a recent meeting of the subcommittee of the Public Health and Education Committee which is studying the whole subject of vocational rehabilitation with representatives of the New York State Department of Education and the State Health Department, the following informative data on the subject was elicited

In June, 1920 a federal law was passed providing for the rehabilitation of physically handicapped persons Anticipating this federal law, there was a law passed in New York State which became effective May 13, 1920 This became Article 47, entitled "Physically Handicapped Persons" The law of 1920, Section 1207, states "Application for rehabilitation —Any physically handicapped person residing within the state may apply to the Department of Education for advice and assistance regarding his rehabilitation (*L 1920, c 760* Eff May 13, 1920)"

Article 47 of the Education Law apparently has been amended from time to time Article 47-A entitled "Promotion of Vocational Education," was added by the Laws of 1932 It is understood that the federal laws were changed in July, 1943, which enabled the Federal government to pay moneys to states carrying on a program rehabilitating physically handicapped persons The State law was changed by the Legislature in 1944 The former Article 47 was completely amended Article 47 is now entitled "Vocational Rehabilitation of the Physically Handicapped" The short title is "The Vocational Rehabilitation Law" This is under the Laws of 1944, Chapter 778, effective April 13, 1944 Following are Sections 1210 and 1211 of that law

"Sec 1210 Acceptance of law of the United States —The State of New York, through its legislative authority

"1 Accepts the provisions of any law of the United States making appropriation to be apportioned among the states for vocational rehabilitation of disabled persons,

"2 Empowers and directs the Board of Regents of the university, hereby designated the New York State Board for Vocational Education, to cooperate with such agency as the federal government shall designate to carry out the purposes of such law,

"3 Appoints the state treasurer as custodian of all money given to the state by the United States under the authority of such law, and such money shall be paid out in the manner provided by such act for the purposes therein specified,

"4 Authorizes and directs the Board of Regents of the university as the State Board for Vocational Education and the Department of Social Welfare to formulate a plan of cooperation in accordance with this article

(*L 1944, c 778* Eff Apr 13, 1944)"

"Sec 1211 Appropriation —Any appropriation made to carry out the provisions of this chapter, in addition to any moneys allotted to the state for a similar purpose by the government of the United States may be used for the payment of salaries, travel, maintenance and operation, and other administrative expenses including the purchase of necessary office furniture, supplies, et cetera, tuition, fees, books, and other training supplies, maintenance and traveling expenses of persons undergoing vocational rehabilitation, occupational examinations and license fees, medical and psychological examinations, placement, equipment, surgical fees, hospitalization and therapeutic treatment

(*L 1944, c 778* Eff Apr 13, 1944)"

It was mentioned that federal funds are appropriated for this purpose and allotted to states according to population New York State receives about 10 per cent of the funds allotted The Federal government does not administer the program in the states but leaves the administration to the states The Federal government, of course, must approve their program, schedule of fees, and policies From the federal funds

received, approximately two-thirds of the cost of administration is met. It is thought that the cost of service to the patients will be about one-half from federal funds and one-half from state funds.

This is the background of the Vocational Rehabilitation to date. Further editorial comment will be made in a subsequent issue on the working and administration of these laws in the State of New York.

Current Editorial Comment

Penicillin*

An amount of penicillin sufficient for the treatment of infectious cases of syphilis has been released to the New York State Department of Health by the Civilian Penicillin Distribution Unit of the War Production Board, upon consideration of the reporting of the results of treatment to the National Research Council, as a part of its study of this agent. Because of this commitment, the administration of this therapy is restricted to the following hospitals and supervising agents: Meyer Memorial Hospital, in Buffalo, under Drs. Earl Osborn and I. Jay Brightman; the City, University, and Memorial Hospitals, in Syracuse, under Drs. E. C. Reifenstein, George Group, and Thomas A. Laurie; Albany Hospital, under Drs. L. W. Gorham and Rudolph Ruedemann; and the New York City Rapid Treatment Center, under Dr. Evan Thomas.

Patients must be referred for treatment in these hospitals through the nearest district state health officer, who will be able to provide for the cost of transportation, hospitalization, and the drug itself. Categories acceptable for treatment include the primary and secondary stages, as well as asymptomatic cases with histories indicating infection of less than one year in duration. Infants of less than one year of age with congenital infections may also be admitted. While cases without prior treatment are preferred, some will be accepted because of failure to maintain regular routine treatment when less than ten units of such therapy have been administered, counting one injection of an arsenical as two units and one injection of bismuth as one unit.

The dosage and period of treatment with penicillin vary in accordance with the degree of central nervous system involvement as evidenced by an examination of the cerebrospinal fluid. The least dosage of penicillin, 1.2 million units, is supplemented with 320 mg. of mapharsen, over a period of 7.5 days. The greatest dosage is 4.0 million units without accessory arsenical therapy, administered in 13.5 days. Infants are treated with a total dose approximately twice as great per pound of body weight as that prescribed for the adult.

Information now available from the short-term observation of penicillin-treated patients indicates that less than 0.6 million unit frequently fails to cure, while doses of 0.6 to 1.2 million units are attended by relapse rates which are in inverse proportion to the size of the dose. Since the attainment of a biologic cure becomes more difficult in the cases of longer duration, 2.4 million units are utilized routinely in the asymptomatic cases with histories of infection within one year, upon the assumption that most of these will have passed through their primary and secondary stages. Also upon the basis of this generalization, no cases of more than one year's duration are treated, for the allocation of penicillin is inadequate for the large doses which would be required. There seems to be no indication as yet that the asymptomatic patient whose infection is of unknown duration should be treated with this agent. Observation will be maintained for at least one year. It is expected that approximately six months will elapse in most seropositive patients in whom treatment has been successful before a negative serologic reaction is attained. It is to be anticipated that approximately 10 per cent of treated cases will require retreatment because of (1) the development of clinical evidence of relapse, such as darkfield positive lesions; (2) serologic relapse—the appearance of a strongly positive reaction in a patient who had attained seronegativity or a low titer; (3) serologic resistance—the persistence of a uniformly high titer over a period of more than six months; and (4) reinfection.

* From the New York State Department of Health, Division of Syphilis Control.

ANOMALIES OF THE SPEECH MECHANISM AND ASSOCIATED VOICE AND SPEECH DISORDERS

JAMES S GREENE, M D , New York City

(*Medical Director, National Hospital for Speech Disorders*)

LARYNGEAL involvements and oral anomalies are often of greater significance than we at first appreciate They are significant not only in themselves, but also because of their effects on the all important speech function and, in turn, on the total personality An abnormality which in another locus might be relatively unimportant, when present in the speech mechanism may cause a speech defect that seriously handicaps the individual in both his vocational and social adjustments

These anomalies, however, present several interesting contradictions Perhaps the most surprising is the comparative unimportance of anomalies of the tongue, in so far as they affect the speech function

From time immemorial the tongue has been considered the principal organ of speech It is recorded in the fourth chapter of Exodus that Moses complained "I am slow of speech and of a slow tongue" Isaiah prophesied that on the day of judgment "the tongue of the stammerer shall be ready to speak plainly" And St Mark wrote "The string of his tongue was loosed and he spake plain" Even the medical man has considered the tongue the organ of supreme importance in speech Galen, for instance, attributed stuttering to debility of the lingual muscles Celsus advocated rubbing the tongue with laserwort when the patient could not "articulate" And as late as the middle of the last century eminent European surgeons attempted to cure various speech defects by operating on the tongue But, despite the importance traditionally centered on that organ, the tongue may be completely extirpated without greatly interfering with the speech function

. *Case 1*—I have in mind the case of a man, 77 years old who developed a cancer of the tongue some sixteen years ago The surgeon prescribed radiation therapy which apparently arrested the condition for some time About two years ago, however, it became necessary for him to perform a glossectomy When we saw the patient a few months later, the tongue had been completely extirpated, nevertheless, his speech was surprisingly well articulated and distinct

Of the less serious tongue conditions the one of which we most often hear is tonguetie (ankyloglossia) But, despite the frequency with which the layman diagnoses as "tonguetie" any speech defect for which he cannot otherwise account, it is a comparatively rare condition In examining over 40,000 speech sufferers in our hospital, we have seen only ten or twelve cases of genuine tonguetie

In true ankyloglossia (Fig 1) the frenum is abnormally short and attached to the tip of the tongue, or so close to it that it seriously interferes with free movement and consequently with speech When an attempt is made to protrude the tongue, it arches in the middle of the dorsum

Another tongue condition which may interfere with speech is papilloma of the tongue The interference with articulation is usually slight, but the condition is interesting because it is so seldom seen Only one case has come under my personal observation, and that was the case of a boy of 7 (Fig 2) who had a papilloma in the midline of the dorsum of the tongue The growth was subsequently removed, and the child has had no further trouble

None of these tongue anomalies is seen as often as are abnormalities of other parts of the speech mechanism Clefts of the palate, for instance, are much more common and, in general, have much more serious effects on speech

According to recent statistics, approximately one child in every thousand is born with a cleft of the lip or palate or both This means that every year, in New York State alone, over two hundred babies are born with such deformities Almost without exception these palatal defects have a marked influence on speech and thus they present a special challenge to the surgeon a challenge not merely to repair the palate but to repair it in such a way as to insure its best possible functioning for the production of speech I emphasize this point because in cases in which the cleft is not extensive, the unmitated are often misled by its apparent insignificance into attempting operative procedures without having had any special training in this type of work Often the deformity following such surgical repair is worse than the original deformity, because the novice fails to consider the gross effects of cicatricial tissue contraction

Case 2—This was true in the case of Richard H Richard had a bilateral cleft of the lip associated with a unilateral cleft of the palate extending

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FIG. 1. Ankyloglossia (front view) in a girl 8 years old.

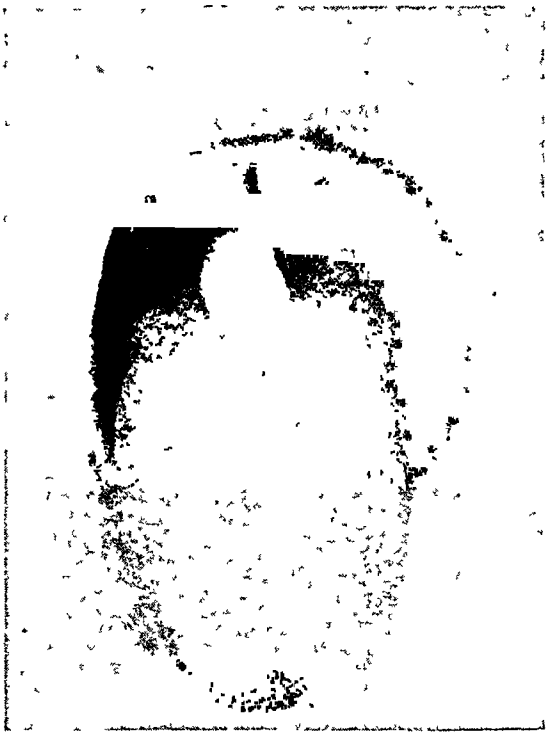


FIG. 2. Papilloma of the tongue.



FIG. 3. Marked oral and facial defects following repair of cleft lip and attempted repair of cleft palate.

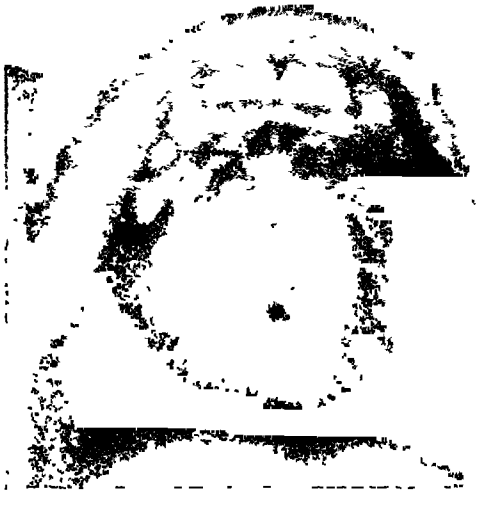


FIG. 4. Pinhole opening in palate of woman, age 34. Patient never received speech training, and her articulatory defect is pronounced.

through both the soft and hard palates and the alveolar process Three operations performed on his lip and palate before he was 2½ years old were all unsuccessful At 18, operative measures were again begun The palate was considered nonoperable, but the lip was operated on four times over a period of two years The operation left the patient with marked oral and facial defects, and scar tissue formation greatly reduced the size of his oral opening (Fig 3) When the patient was seen in our clinic, at the age of 21, the cleft in his palate still remained and a dentist had tried to block it with a hard rubber obturator The obturator did not fit well and allowed a leakage of air all around In brief, all the surgical and dental results were very poor, and the patient's speech defect was pronounced

The appliance with which this patient was fitted was of the so called plug type There seems to be a question as to which is better this plug type device, or the hinged-type artificial larynx (the velum movable extension appliance) There appears to be no standard technic for the making of either type and no general agreement as to what material to use There are appliances made of hard rubber soft rubber, gold alloys, steel alloys, and acrylic products such as luxene, vernonite and lucite I am sorry to say that, regardless of the type of appliance or the material used, most of those that I have seen do not fit properly

Before leaving the subject of cleft palates I should like to emphasize the importance of speech training for patients with this type of defect In almost every case, regardless of the success of operative measures, speech training is necessary This is because the operation is usually not performed until the child is at least 3 4 or 5 years old, and by that time he has already begun to talk and to develop many faulty speech habits Moreover, for each faulty speech pattern he has also built up a definite neuromuscular pattern that can be changed only with great difficulty The operation does not alter these patterns and for this reason the child usually continues to show very much the same type of speech defect as before Further, there is the important factor of scar tissue contraction, which tends to restrict function and pliability of the supporting tissues and, at the same time, to foreshorten the soft palate The foreshortening of the palate leaves an abnormally wide postnasal space which makes it difficult for the patient to control the escape of air into the nose and almost inevitably causes his speech to be characterized by an unpleasant nasal intonation

We feel that, if possible, speech training should be instituted even before the operation—in fact just as soon as the child begins to talk—in order that the correct neuromuscular patterns may be built up We have recently had occasion to see two cases which, in their contrasts, illustrate the value of early speech training

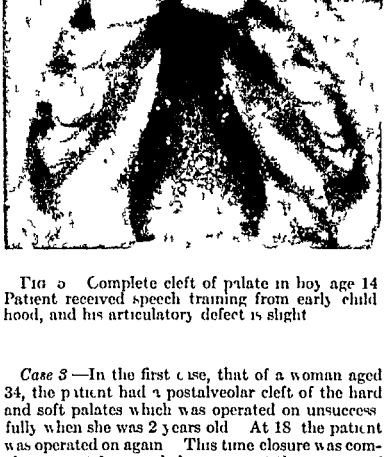


FIG 3 Complete cleft of palate in boy age 14 Patient received speech training from early childhood, and his articulatory defect is slight

Case 3—In the first case, that of a woman aged 34, the patient had a postalveolar cleft of the hard and soft palates which was operated on unsuccessfully when she was 2 years old At 18 the patient was operated on again This time closure was complete except for a pinhole opening at the junction of the hard and soft palates (Fig 4) However, since the patient had never received speech training, her speech is still nasal, indistinct, and almost completely unintelligible

Case 4—In the second case, that of a boy of 14 the patient had a bilateral complete cleft of the lip associated with a cleft of the hard and soft palates An operation on the lip was performed when he was 11 days old, it was followed by a second operation when he was 3 months old The palate has never been repaired (Fig 5) The reason is interesting The patient's mother knew an older child who had been operated on for a cleft of the palate but whose speech, in spite of the operation, was still very defective She felt that if the operation could do no more for her son there was no point in subjecting him to the ordeal Instead, she gave him speech training over a period of years and some time ago brought him to our clinic for further work In spite of his complete cleft, his speech is well articulated distinct and characterized by surprisingly little nasality

In conclusion, I want to touch briefly on the problem of rehabilitating the patient who has undergone a laryngectomy It has often been said that of the various types of malignant growths cancer of the larynx, when operated on in time offers the most favorable prognosis as far as saving the patient's life is concerned However, removal of the larynx poses a new and what seems to many patients anal most insurmountable problem After leading full and active lives for forty, fifty, or sixty years, they suddenly find themselves completely voiceless and, in con-

sequence, cut off from most avenues of employment and greatly handicapped in all their interpersonal relationships.

The surgeon who operates on these patients may follow one of three courses after the operation. He may consider his responsibility ended and dismiss the patient with no advice other than to return for an occasional "check-up," in which case the individual will, in all probability, remain voiceless for the rest of his life. On the other hand, he may recommend that the patient use an artificial larnyx, or he may refer the patient to a clinic for training to develop an esophageal voice.

If the surgeon recommends an artificial larynx, about the the only type the patient will be able to obtain at present is one operating on the reed principle, which is a modification of the mechanical larynx first devised by Czermak in 1859. It consists of a hollow metal cylinder containing a reed attached, on one end, to a small rubber tube which the patient holds in his mouth and, on the other end, to a larger tube which he inserts into his tracheal fistula. The current of air expired from the trachea sets the reed in vibration and produces sound, which in turn the patient converts into speech.

This reed-type instrument has several obvious disadvantages, the principal ones being that it is unhygienic and conspicuous. We have been trying for some time to develop an instrument on a different principle, the principle of Mr. Gilbert Wright's Sonovox. This instrument consists of a small capsule containing two battery-connected coils, over which a diaphragm is stretched. When the capsule is pressed against the neck, over the glottal region, electrical contact is established and the diaphragm vibrates. The vibration is communicated through the tissues of the neck to the static air in the hypopharynx, setting the air in vibration and producing sound which the patient transforms into speech. This instrument, when perfected, should prove much more satisfactory than the old reed-type artificial larynx, but we have been unable under present wartime conditions to develop it properly. The main objection to it now is that it produces a loud buzzing noise which drowns out the patient's speech.

However, any type of instrument is an encumbrance to the patient. Fortunately, it is usually possible for him to develop a substitute voice without the aid of such devices. At our postlaryngectomy clinic, we train these patients to phonate by using the esophagus in lieu of the larynx. The resulting esophageal voice is much more satisfactory than that produced by the artificial larynx, and enables the patient to carry on his normal, everyday activities, even to the extent of using the telephone.

Summary

Laryngeal involvements and oral anomalies, with a few exceptions, are important primarily because of their effects on voice and speech. An abnormality, which in itself is relatively unimportant, when present in the vocal or articulatory mechanism may cause a voice or speech defect that seriously handicaps the individual in all his interpersonal relationships. Contrary to popular opinion, however, abnormalities of the tongue, in general, have comparatively slight effects on speech; the tongue may be completely extirpated without greatly interfering with articulation. Clefts of the palate have much more serious effects on the speech function. Closure of such clefts, whether by operative repair or by mechanical appliances, does not in itself remedy the speech defect. Speech training is necessary and should be instituted as early as possible.

A different type of problem is presented by the patient who has undergone laryngectomy and has completely lost the normal voice-producing mechanism. Such a patient may be fitted with an artificial larynx, or he may be trained to develop a substitute voice by using anatomic structures other than the larynx. The artificial larynx has many disadvantages, but it is fortunately possible, in most cases, for the patient to develop a substitute voice without resorting to any mechanical device.

61 Irving Place
New York City

UNIVERSITY OF ILLINOIS ANNOUNCES SPRING REFRESHER COURSE IN OTOLARYNGOLOGY

The fifth semiannual refresher course in laryngology, rhinology, and otology will be conducted by the University of Illinois College of Medicine at the College in Chicago, March 26–31, inclusive, 1945. While the course will be largely didactic, some clinical instruction will be included. This course is intended primarily for ear, nose, and throat specialists.

As the registration is limited to thirty, applications will be considered in the order in which they are received. The fee is $50. When writing for application please give details concerning school and year of graduation, past training, and experience. Address applications to Dr. A. R. Hollender, Chairman, Refresher Course Committee, Department of Otolaryngology, University of Illinois, College of Medicine, 1853 West Polk Street, Chicago 12, Illinois.

HYPOPROTHROMBINEMIA: EFFECT OF ORAL AND PARENTERAL THERAPY WITH SYNTHETIC VITAMIN K SYNKAYVITE *

NORMAN H LETOURNEAU, M D , New York City

(From the Graduate Surgery Department, New York Medical College and Flower Fifth Avenue and Metropolitan Hospitals)

THE first synthetic vitamin K preparation, introduced by Almquist and Klose (2-methyl, 3 phytyl-1, 4-naphthoquinone), and those that followed had the disadvantages of low solubility and some toxic properties Therefore investigators instituted a search for products that did not have these unwanted characteristics This paper deals with one such preparation known as synkayvite, or 2-methyl 1 4-naphthohydroquinone diphosphoric acid ester tetrasodium salt It occurs as a white, crystalline powder which is exceedingly hygroscopic and very freely soluble in water

Effect of Synkayvite Therapy

The purpose of this study is to record the response of hypoprothrombinemic patients to oral and intramuscular synkayvite therapy and to determine, within a reasonable degree of accuracy, the time required for this response to take place

An attempt was made to select nonjaundiced patients for this series, as it was deemed advisable to use patients with minimal liver damage to determine accurately the response to synkayvite However, as liver damage in the three jaundiced cases listed in Table 1 was not great enough to interfere appreciably with the response to synkayvite therapy, they were included in the series

Recorded in Table 1 are the results of the study This table lists 20 patients whose prothrombin time ranges between 30 and 40 per cent of normal To 12 patients in this series 10 mg of synkayvite was administered intramuscularly and ten to twenty-four hours after injection the prothrombin time was determined If, after twenty-four hours, the prothrombin time had not returned to normal limits, 10 mg of synkayvite was again administered intramuscularly and the prothrombin time determination repeated in twenty-four hours This procedure was followed every twenty-four hours until a normal prothrombin time was obtained To 8 patients in this series 10 mg of synkayvite was administered orally and this dosage was likewise repeated every twenty four hours until a normal prothrombin time was obtained

* Vitamin K like compound synthesized by Hoffmann La Roche Inc Nutley New Jersey who provided generous supplies for this study

Determination of Prothrombin Time

Determination —A modification of the Quick method was used to determine the prothrombin times

The bactothromboplastin used by us is prepared from rabbit brains and standardized by the Difco Laboratories of Detroit It is put up in ampules containing 0 15 Gm of powdered rabbit brain In preparing the thromboplastin solution as it is used in performing the test, the contents of one ampule is deposited in a well-cleaned test tube and to this is added 2 5 cc of 0 85 per cent solution of sodium chloride and 0 05 cc of a tenth molar solution of sodium oxalate This mixture is then incubated in a water bath at 45 C for ten minutes, with frequent stirring After incubation the mixture is centrifuged slowly for three minutes, following which the milky thromboplastin solution is then separated from the particles at the bottom of the tube Four and one-half cc of blood is removed from the patient's arm by means of venipuncture and deposited in a test tube containing 0 5 cc of a tenth molar solution of sodium oxalate and thoroughly mixed The blood is then centrifuged at a slow rate of speed for five minutes and the plasma drawn off into a second test tube

We suggest that small test tubes be used in these determinations because of the small amount of reagents used and to allow a more accurate determination of the clotting point One tenth of a cubic centimeter of prepared thromboplastin solution is added to one tenth of a cc of patient's plasma and thoroughly mixed One tenth of a cc of fortieth molar calcium chloride is added and the time which elapses before clotting begins is measured by means of a stop watch Constant observation and maneuvering of the test tube is necessary to obtain an accurate clotting time Using standardized bactothromboplastin, normal clotting occurs in fifteen to sixteen seconds If the patient has hypoprothrombinemia the clotting time will be prolonged to more than sixteen seconds

Prothrombin Time Determinations

In the course of this study the prothrombin times of more than 120 patients at Flower-Fifth Avenue and Metropolitan Hospitals were determined The diagnoses in these cases cover a

TABLE 1.—Prothrombin Time Before and After Synkayvite Therapy

Patient	Diagnosis and Synkayvite Dosage	Prothrombin Time in Seconds 1	2	3	4
1. B.	Cardiovascular heart disease; essential hypertension; cerebral accident; sclerotic nephritis; possible carcinoma of stomach				
March 14, 1941		20 2/5	19	20 2/5	
March 17, 1941	8:30 A.M.	19	20 2/5	19	
March 17, 1941	8:30 A.M.—10 mg. synkayvite by hypodermic intramuscularly				
March 17, 1941	6:30 P.M.	17	17 2/5	18	17
March 18, 1941	8:30 A.M.	16	16 2/5	16 3/5	16
2. F. A.	Catarrhal gastritis; possible carcinoma of stomach; lobar pneumonia				
April 18, 1941	9:30 A.M.	23	23	23	
April 19, 1941	8:30 A.M.—10 mg. synkayvite intramuscularly				
April 19, 1941	6:30 P.M.	21	20 2/5	19 3/5	
April 20, 1941	9:30 A.M.	15	16	16	
3. A. B.	Hypertensive cardiovascular heart disease: cerebral accident; cystadenoma of thyroid; cataracts; old osteomyelitis, right tibia; endocervicitis				
April 18, 1941	9:30 A.M.	19	20	19	
April 19, 1941	8:30 A.M.—10 mg. synkayvite orally				
April 19, 1941	6:30 P.M.	16	16	17	17
April 20, 1941	9:30 A.M.	16 2/5	15	15 3/5	
4. P. W.	Carcinoma of stomach with metastases to liver, with jaundice				
May 7, 1941	12 Noon	23 2/5	23	23	
May 7, 1941	1:00 P.M.—10 mg. synkayvite intramuscularly				
May 8, 1941	1:00 P.M.	18	17 3/5	17	
May 8, 1941	1:00 P.M.—10 mg. synkayvite intramuscularly				
May 9, 1941	1:00 P.M.	16 2/5	16	15 2/5	
5. A. H.	Carcinoma of prostate with metastases				
April 26, 1941		22	21 3/5	22	
April 27, 1941	*8:00 A.M.—10 mg. synkayvite orally*				
April 27, 1941	6:00 P.M.	22	22	21	
April 28, 1941	8:30 A.M.	21	20 3/5	21	
April 28, 1941	8:30 A.M.—10 mg. synkayvite orally				
April 29, 1941	8:45 A.M.	19	19	19 2/5	
April 29, 1941	8:45 A.M.—10 mg. synkayvite orally				
April 30, 1941	8:30 A.M.	16 2/5	17	17	
6. A. S.	Large advanced ulcerating malignancy of breast with metastases to liver				
April 18, 1941		20	19	20	
April 19, 1941	8:30 A.M.—10 mg. synkayvite intramuscularly				
April 19, 1941	6:30 P.M.	18	18	17	18
April 20, 1941	9:30 A.M.	16 2/5	15	16	
7. M.	Pulmonary tuberculosis with pleural effusion				
September 11, 1941		22 2/5	23	22	
September 16, 1941	2:30 P.M.—10 mg. synkayvite intramuscularly				
September 16, 1941	2:30 P.M.	23	24	23 2/5	
September 17, 1941	2:30 P.M.—10 mg. synkayvite intramuscularly				
September 17, 1941	2:30 P.M.	19	18 3/5	19	
September 18, 1941	2:30 P.M.	16	15 3/5	16	
8. M.	Pulmonary tuberculosis; visceroptosis				
September 11, 1941		20 3/5	20 2/5	20	
September 16, 1941	2:30 P.M.	21	20 2/5	21	
September 16, 1941	2:30 P.M.—10 mg. synkayvite intramuscularly				
September 17, 1941	2:30 P.M.	17 3/5	17	17	
September 17, 1941	2:30 P.M.—10 mg. synkayvite intramuscularly				
September 18, 1941	2:30 P.M.	16	15 2/5	15 2/5	
9. G.	Carcinoma of the esophagus with metastases to liver—jaundiced; gastrostomy				
September 11, 1941		20 3/5	21	20 2/5	
September 16, 1941	2:30 P.M.	21 2/5	21	21	
September 16, 1941	2:30 P.M.—10 mg. synkayvite intramuscularly				
September 17, 1941	2:30 P.M.	18	18 2/5	18	
September 17, 1941	2:30 P.M.—10 mg. synkayvite intramuscularly				
September 18, 1941	2:30 P.M.	15 2/5	16	16	

TABLE 1—(*Continued*)

10 F. K.	Postoperative appendectomy with dehiscence of wound toxic cholangitis with jaundice following sulfathiazole therapy			
October 27, 1941		22	21½	21
October 28, 1941	5 00 P M —10 mg synkayvite intramuscularly			
October 29, 1941	9 00 P M	16½	16	16
11 C B	Carcinoma of esophagus			
December 6, 1941		21	20½	20
December 6, 1941	1 30 P M —10 mg synkayvite intramuscularly			
December 7, 1941	1 30 P M	15½	16	16
12 R	Multiple fistulae and necrotic lesions of rectum of probable tuberculous origin postoperative colostomy			
December 6, 1941		22½	23	24
December 6 1941	1 30 P M —10 mg synkayvite intramuscularly			
December 7, 1941	1 30 P M	16	15½	16
13 S	Arteriosclerotic heart disease failure of right and left sides of heart, pleural effusion—cause unknown, colloid goiter with possible malignant degeneration			
December 6 1941		21	20½	20
December 6, 1941	1 30 P M —10 mg synkayvite intramuscularly			
December 7, 1941	1 30 P M	17	16	16½
14 B	Lobar pneumonia followed by multiple lung abscesses, septicemia syphilis gangrene of penis and lower abdominal wall			
December 7, 1941		22	21½	21½
December 7, 1941	1 30 P M —10 mg synkayvite intramuscularly			
December 8, 1941	1 30 P M	17	17	18
15 M D	Intracapsular fracture of the neck of the right femur abscess right hip decubitus ulcer of buttocks avitaminosis bronchiectasis cardiospasm cardiac decompensation pulmonary congestion and possible tuberculosis			
February 10, 1942		20	20	19½
February 10, 1942	1 30 P M —10 mg synkayvite orally			
February 11, 1942	1 30 P.M	18	17½	17
February 11, 1942	1 30 P M —10 mg synkayvite orally			
February 12, 1942		16	16	15½
16 S	Carcinoma of breast with metastases to bones gallbladder pathology			
March 15, 1942	1 30 P M	21	20½	21
March 15, 1942	1 30 P M —10 mg synkayvite orally			
March 16, 1942	1 30 P M	18½	19	19
March 16, 1942	1 30 P M —10 mg synkayvite orally			
March 17, 1942	1 30 P M	16	16	16
17. A V	Carcinoma of breast with liver and glandular metastases			
March 16, 1942		20½	21	20½
March 16, 1942	1 30 P M —10 mg synkayvite orally			
March 17, 1942	1 30 P M	19	18½	18
March 17, 1942	1 30 P M —10 mg synkayvite orally			
March 18, 1942	1 30 P M	17	16½	16
18 L	Arteriosclerosis with arteriosclerotic heart disease pulmonary tuberculosis diabetes diabetic gangrene of both lower extremities			
March 20, 1942	1 30 P M	21½	21	22
March 20 1942	1 30 P M —10 mg synkayvite orally			
March 21, 1942	1 30 P M	20	19	18½
March 21, 1942	1 30 P M —10 mg synkayvite orally			
March 22 1942	1 30 P M	17	16	16
19 S	Postoperative colostomy (1941) for inoperable carcinoma of large bowel, generalized carcinomatosis cardiovascular heart disease			
March 23, 1942		20	19½	20
March 23 1942	1 30 P M —10 mg synkayvite orally			
March 24 1942	1 30 P M	18½	18	18
March 24 1942	1 30 P M —10 mg synkayvite orally			
March 25 1942	1 30 P M	16	15½	16
20 S	Pulmonary tuberculosis diabetes diabetic gangrene right lower extremity left amputation (midthigh) severe diabetic arteriosclerosis			
February 26 1942		21	20½	20½
February 26 1942	1 30 P M —10 mg synkayvite orally			
February 27 1942	1 30 P M	20	18½	19
February 27, 1942	1 30 P M —10 mg synkayvite orally			
February 28 1942	1 30 P M	17	16½	16

TABLE 2

Diagnosis	No. of Cases	Remarks	Prothrombin Deficiency — Normal	Moderate Deficient	Marked Deficiency
Pulmonary tuberculosis	32	Hemoptysis in the two cases with marked deficiency; hemoptysis present in several normal patients	22	8	2
Carcinoma (all sites)	21	The more advanced the carcinoma the more frequent the prothrombin deficiency	7	5	9
Perforated peptic ulcer	4	.....	3	1	..
Pneumonia	2	.....	..	1	1
Gallbladder disease	8	Cases were those of cholecystitis or cholecystitis with stones	8	..	..
Ulcerative colitis	2	.....	1	1	..
Bleeding peptic ulcer	1	.....	1	..	..
Intestinal obstruction	3	.....	3	..	..
Myeloid leukemia	1	.....	..	..	1
Uremia	1	Failed to respond to vitamin K therapy	..	..	1
Diabetes with gangrene	4	Gangrene of lower extremity was advanced	..	4	..
Thyrotoxicosis	1	.....	1	..	..
Diverticulitis	2	.....	2	..	..
Postoperative colostomy for tuberculosis of rectum	1	.....	..	..	1
Malnutrition; beri-beri	1	.....	1	..	..
Cerebral accident	1	.....	..	..	1
Epidural hemorrhage	1	.....	1	..	..
Gastric crisis	1	.....	1	..	..
Pyonephrosis and septicemia	1	.....	1	..	..
Dermoid cyst (removed at operation)	1	Postoperative bleeding and hypochromic microcytic anemia present	1	..	..
Largé abdominal-wall abscess	1	.....	1	..	..
Postoperative abdominal perineal resection	1	.....	1	..	..
Postencephalitic Parkinsonism and granuloma of toe	1	.....	1	..	..
Peripherovascular disease	1	.....	1	..	..
Arteriosclerosis obliterans	1	.....	1	..	..
Hypertensive heart disease	1	.....	1	..	..
Postoperative resection, right half of colon	1	.....	..	1	..
Dehiscence of wound with toxic cholangitis	1	.....	..	..	1
Indefinite and undiagnosed	24	.....	..	..	..
Total	121		59	21	17

wide range, some of the most noteworthy of which are listed in Table 2.

Discussion

Although 20 cases are listed in Table 1 in which the prothrombin was as low as 30 per cent and not greater than 40 per cent of normal, no bleeding tendency was observed in any case that could be attributed to hypoprothrombinemia or that was checked by synkayvite therapy. It has been reported by investigators that bleeding does not occur until the prothrombin of the blood is reduced to markedly low levels; i.e., below 10 per cent of the normal in the human. This series would tend to substantiate the fact that there is a wide margin of safety in the prothrombin factor.

Table 1 shows a high incidence of hypoprothrombinemia in patients with carcinoma. The majority of patients with carcinoma reported in this study had advanced cases, and it would appear that there is a correlation between the stage of carcinoma and the degree of hypoprothrombinemia.

The incidence of hpyoprothrombinemia was also high in patients with pulmonary tuberculosis as shown in Table 2. Two cases reported in Table 1 (7 and 8) had hemoptysis. However, synkayvite therapy was followed by a normal prothrombin time and did not check the hemoptysis. It would appear that the hemoptysis in these patients was not related to the coexisting hypoprothrombinemia.

A patient with terminal uremia with marked liver damage was found to have prothrombinemia. It was interesting to note that this patient did not respond to synkayvite therapy. This was expected.

Oral synkayvite therapy caused a rapid rise in the prothrombin level in one case and in the remaining cases there was a gradual rise to normal in from forty-eight to seventy-two hours. This is explained by the fact that the effect of oral synkayvite depends on the amount absorbed from the gastro-intestinal tract. Oral administration of synkayvite, in the majority of cases, returned the prothrombin time to normal in forty-eight hours.

In all cases of hypoprothrombinemia in which liver function was unimpaired, synkayvite administered intramuscularly caused a rise in the prothrombin level to within normal limits in ten to twenty-four hours.

In one patient with obvious liver impairment, intramuscularly administered synkayvite did not cause a rise of the prothrombin level to normal until forty-eight hours had passed.

Conclusions

1 In nonjaundiced patients with unimpaired liver function when a prothrombin deficiency exists, the prothrombin level can be raised to within normal limits in ten to twenty-four hours by giving 10 mg of synkayvite intramuscularly

2 In patients with impaired liver function who have a prothrombin deficiency, the rate at which the prothrombin level can be raised after 10 mg of synkayvite is administered intramuscularly depends on the degree of liver impairment

3 The efficacy of orally administered synkayvite appears to depend on the amount of absorption that takes place in the gastro-intestinal tract

In patients with unimpaired liver function the prothrombin level can be returned to normal in from twenty four to seventy-two hours A normal level is usually attained in forty-eight hours

In patients with liver impairment the rate at which the prothrombin level can be raised depends on the degree of liver damage

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"DOCTOR JONES' SAYS—

We were talking here recently about the shortage of doctors due to the war And of course along with that we're low on nurses and the hospitals are short handed The result is a lot of people if they have sickness in the home they re pretty much on their own But there s one thing that s helping out an awful lot in places where they re taking advantage of it and that's these Red Cross courses in home nursing

It reminds me of an old lady I used to be well acquainted with—lived over on the Long Brook Road She had to testify, in court on a case where sickness was involved and she made some reference to her nursing experience The lawyer asked her if she was a trained nurse and she said "Yes ' He asked her where she got her training 'I aking care of my mother," she says

Well that experience could ve been valuable but the trouble with her was she didn t know enough about it to recognize that she wasn't a nurse It s different with the folks that've had these Red Cross courses They learn a lot and one thing they learn is that they aren t nurses In other words they know their limitations Even a little knowledge if it's the right kind, is worth having It's when we don't recognize that it is only a little that it may be dangerous And a little, plus a little more—that's about all any of us've got

Anyw like twelve two hot experienced people hat take 'em (mothers, u ughters even pop, if he s interested) they learn to do a lot of things that'll help out the doctor and that'll always come in handy Taking temperatures, making up a bed with the patient in it giving baths fixing up a food tray so it'll look inviting keeping records of medicine and symptoms—those re just a few items that occur to me What they get—it's things that, war or peace, somebody in every home ought to be acquainted with

A doctor trying to look after a sick patient without any intelligent support—it makes me think of the colored woman I went to see years ago When I put the thermometer under her tongue she couldn't shut her lips So I said 'Allright, we ll put it under your arm " 'No suh " she says I ain' goin' to have that thing under mah arm!' 'Why not?' I said "'Cause a doctah put one there once an' *it didn't do me no good!*'—*Paul B Brooks, M D , in Health News, Nov 21, 1944*

TUBERCULOSIS AS AN INDEX OF SOCIAL PROGRESS

It is often said that the death rate from tuberculosis is a delicate index of social progress If this is so one of the most striking features in the history of public health is the steady decline of both pulmonary and nonpulmonary tuberculosis during the past two generations There are many factors responsible for this decline including a higher standard of living better housing, and better education but these are only contributory It must never be forgotten that tuberculosis is first and last an infectious disease Anything that increases the risk of infection will cause a rise in the incidence of the disease, and anything that diminishes that risk will result in a rapid improvement in the figures—*James Mackintosh, M D, New Jersey Pub Health News Dec, 1943*

PENICILLIN—THE RAPIDITY OF ITS EFFECT IN THE TREATMENT OF GONORRHEA

VERNON M. DUNFIELD, Capt., (MC), AUS, and ADRIAN MANDEL, Lt., (SC), AUS

IN MAY, 1943 Herrell, Cook, and Thompson[1] reported the results of the use of penicillin in the treatment of three cases of gonorrhea. Since that time many articles have appeared, notably those of Keefer *et al.*,[2] Mahoney *et al.*,[3] Ferguson and Buckholtz,[4] and Turner and Sternberg,[5] which have shown penicillin to be a very effective and rapidly acting agent in the treatment of gonorrhea. The following study was undertaken to determine, if possible, the rapidity with which penicillin would bring about a clinical and laboratory cure of gonorrhea. Miller and associates[6] have since published some results of studies in this regard.

Methods

The study is based on 154 nonselected male patients as they presented themselves for treatment. The only requirement for inclusion in the series was the presence of a urethral discharge, positive for gonorrhea by smear or culture, and resistant to at least five days of sulfathiazole therapy. The dosage used in all cases was 100,000 units given in 20,000-unit doses at intervals of three hours by the intramuscular route.[7] Though all cases were proved to be gonorrheal in origin, it was not possible to secure positive smears in every instance on the day on which therapy was instituted. A urethral smear was made on each case on the morning on which therapy was initiated and every three hours thereafter prior to each injection until completion of therapy. After each smear was made, the patient was instructed to urinate and not to empty the bladder again until the next smear was obtained. Records were kept of these smears and correlated with the amount of urethral exudate, which was arbitrarily represented as one, two, three, or four +. Urethral smears and cultures were secured on all cases at the end of twenty-four hours whenever obtainable. Cultures were made on chocolate agar plates and incubated in an atmosphere of 10 per cent carbon dioxide. The patients were seen daily for three days following treatment and then once weekly until three weeks had elapsed, except those cases presenting unusual features, when the patients were hospitalized longer and followed more closely. In those cases responding promptly to penicillin, no tests of cure were used other than clinical observation. In this connection the writers wish to call attention to an article by Turner and Sternberg[5] on "The Management of the Venereal Diseases in the Army" and also to the teaching of Pelouze[8] on indiscriminate manipulations of the urethra infected with gonorrhea.

Discussion

Of 154 cases, positive smears were demonstrated in 117 at the outset of treatment. Of the remaining 37 cases, 11 exhibited either positive smears or extracellular organisms later on in the series of three-hour smears. Six cases showed extracellular organisms at the outset, and 20 remained negative throughout. These findings are represented in Table 1, where the results are further analyzed. The important fact here seems to be that, after receiving varying amounts of penicillin, 7 cases changed from negative to positive; 4 cases with negative smears at the outset later showed extracellular organisms, and three cases with extracellular organisms at the outset later became positive. These 37 cases, with two exceptions (see Table 2), showed complete recovery, including the 20 cases that were negative throughout. It would appear from these data that any patient with a proved case of gonorrhea and a persistent urethral discharge following treatment with sulfonamide should have the benefit of penicillin therapy even though a positive smear or culture is not obtained.

Table 3 is a representation of the results of urethral smears made at three-hour intervals. The first line of the table presents the results on the total 154 cases, with the percentage negative given in parentheses. The second line of the table gives the results only on those cases which were positive at the beginning. Fourteen instances were noted in which a discharge became negative to smear examination and later reverted to positive. This reversion occurred at varying times between six and twelve hours from the beginning of treatment, i.e., when between

TABLE 1.—ANALYSIS OF CASES ACCORDING TO PRETREATMENT SMEAR FINDINGS

Total Cases Treated	Frank Discharge and Positive Smear	Frank Discharge and Negative Smear	Negative Smears Later Positive	Negative Smears Later Extracellular	Extracellular Later Negative	Extracellular Later Positive	Negative Throughout
154	117	37	7	4	3	3	20

TABLE 2.—OTHER CASES TREATED MORE THAN ONCE WITH PENICILLIN BECAUSE OF RECURRENT OR PERSISTENT DISCHARGE OR POSITIVE SMEARS

Case No.	Reason for Retreatment	Post treatment Culture	Post treatment Smear	Post treatment Discharge	Number of Courses of Penicillin
1*	[illegible]	Negative	Negative	++++	3
2	[illegible]	Negative	Extracellular organisms	++++	3
3	[illegible]	Negative	Positive	++++	3
4	[illegible]	Negative	Negative	None	2
5*	[illegible]	Negative	Negative	++++	3
6	isms	Negative	Extracellular organisms	++++	3
7*	Persistent discharge with positive smear	Negative	Negative	++++	3

* Patients previously treated with one course of penicillin at other installations

40,000 and 80,000 units of penicillin had been administered. No correlation could be drawn between the time and dosage factor and the reversion to the positive state. When the study was undertaken it was hoped to draw some conclusions from the result of serial smears as to the time in which penicillin would bring about a clinical and laboratory cure of gonorrhea. It was early apparent that this was not possible for the following reasons: (1) As outlined above, smears which became negative did not indicate a permanent cure. (2) In order to demonstrate the time of cure, the treatment would have to be terminated at various intervals in the schedule and followed for evidence of recurrence or persistence in groups of significant size. It is to be noted, however, that the largest number of smears to become negative did so in the first three hours, and the second largest group did so in the second three-hour period, in which the patients had received a total of 20,000 units and 40,000 units, respectively.

In Table 4 are shown the follow-up results in the three cases of the series which were still bacteriologically positive after twenty-four hours. Case 2, who showed the most persistent discharge, was given the second course of penicillin three days following the initial therapy. This was deemed necessary because this patient presented a profuse yellow, purulent, urethral discharge in contrast to the grayish, thin, mucoid exudate frequently noted for several days in cases responding to therapy.

From the foregoing it appears that there were no treatment failures in the series, but this is not the case. In Table 2 are set forth the cases which were negative to both smear and culture on the twenty-four hour examination that were treated with more than one course of penicillin because of persistent discharge which became positive bacteriologically at some time during the twenty-one-day follow-up period. One of these cases went on to recovery, the remaining six were treatment failures and were referred to General Hospital for further treatment. These represent a failure rate of 5.2 per cent for the entire series. Failure of therapy was judged by the persistence of a thin mucoid discharge following three courses of penicillin. These discharges were negative to cultural examination in all instances, but in some cases continued to show, at intervals, extracellular gram-negative diplococci. In Table 5 are shown the results of the serial smears in each of these six resistant cases, together with the number of days following each treatment that positive smears were obtained. The patients were lost to observation at periods varying from four weeks to four months, but in all instances they continued to show an intractable exudate. The fact that seven cases were negative to smear and cultural examination at the termination of the first twenty-four hours and later reverted to a positive status is indicative that a careful follow-up program is as essential after penicillin as after any other drug. Cases 2, 3, and 6 received, on their third course of penicillin, an initial dose of 100,000 units followed by 20,000 units every three hours for five additional doses. It is felt that persistence of the discharge in these cases, at least, is due not to insufficient dosage but rather to certain anatomic conditions, the details of which are worthy of mention, in that in each case mechanical abnormalities or other well-recognized reasons for treatment failure were present.

Case Reports

Case 1.—A stricture of the pendulous urethra was present, about midway on the penile shaft, which admitted a number 11 Fr. sound with difficulty.

Case 2.—History of a penile discharge for the seven months preceding the initiation of penicillin therapy was given. Previous treatment had consisted of numerous courses of sulfathiazole at other installations and one course of fever therapy. The prostate was large and boggy and its secretion contained many leukocytes. This is a case of chronic gonorrhea with prostatic involvement.

Case 3.—A history of gonorrhea four years pre-

TABLE 3.—Serial Smears Taken at Three-Hour Intervals Throughout Treatment Course

	Negative in 3 Hours	Negative in 6 Hours	Negative in 9 Hours	Negative in 12 Hours	Negative in 24 Hours	Positive in 24 Hours
Total no. cases (154)	88 (57.1%)	135 (87.6%)	138 (89.6%)	139 (90.2%)	151 (98%)	3*
Cases with initial positive smear (117)	59 (50.4%)	99 (84.6%)	104 (88.8%)	104 (88.8%)	115 (98.2%)	2

* 3 cases include one which started treatment with a negative smear.

viously, followed by an intermittent penile discharge, was given. This persisted in spite of extremely large quantities of sulfonamides, urethral instillations, and prostatic massage before and after he came under our observation. The sudden onset of profuse gonorrheal discharge and history of a recent exposure after he had been under treatment for nonspecific prostatitis classifies this case as a reinfection complicating a chronic prostatitis which was originally gonorrheal in origin.

Case 5.—The patient had a history of at least eight attacks of gonorrhea. Penicillin was given at another hospital two and a half months before, but discharge was said to have persisted ever since as a morning drop. Reinfection was denied, but the patient presented a profuse purulent discharge indicative of a reinfection.

Case 6.—There is a history of an intermittent discharge for thirteen months, during which nine courses of sulfathiazole and one course of heat therapy were administered. A positive smear was obtained after urethral sounding for a stricture of the bulbous urethra.

Case 7.—There was a history of recurrent urethral discharge ever since he had been treated with penicillin six weeks previously at another hospital. First degree hypospadias was present.

Summary

One hundred fifty-four nonselected cases of proved gonorrhea were studied from the standpoint of determining the rapidity of the action of penicillin in gonorrheal urethritis. There is a rapid disappearance of the gonococci from the urethral exudate, as indicated by urethral smears. We are unable, however, to duplicate the uniformly successful results of Miller and his coworkers,[6] in that we were able to demonstrate only 50.4 per cent negative in three hours and 84.6 per cent in six hours from 117 cases that were definitely positive at the start of therapy. The greatest increment of change from positive to negative occurs in the first six hours, but it is apparent that this change is not necessarily a permanent one and that reversions to positive occurred in an appreciable number of cases. In uncomplicated cases the results of treatment were uniformly successful though retreatment was necessary in two cases. Subjective symptoms disappear very rapidly, usually in the first three to six hours, and the amount of discharge decreases in a manner remarkably parallel to the disappearance of the gonococci from the smears. The character of the discharge rapidly changes from that of a profuse yellow pus to a thin, grayish mucoid exudate, which persists on an average for three days in cases responding to treatment. Failure of other observers to note this is possibly due to neglect in instructing patients to avoid urination until examined. Treatment failures are obvious very early and the best guide here is the clinical appearance of the exudate, which persists or recurs as a whitish-to-yellow, somewhat thicker exudate that may or may not show the presence of intra- or extracellular gram-negative diplococci. Care should be exercised in post-treatment follow-up, since it is evident that recurrences do occur. In the presence of factors which interfere with drainage, penicillin treatment was found not to be uniformly successful.

TABLE 4.—Results in the Three Positive Cases at the End of Twenty-Four Hours' Treatment

Case No.	Number of Days of Persistent Discharge Following Treatment	Number of Days Before Negative Smears Were Obtained	Number of Courses of 100,000 Units of Penicillin
1	6	4	1
2	14	3	2
3	11	3	1

Conclusions

1. In acute uncomplicated gonorrheal urethritis penicillin is an effective and rapidly acting drug. In 148 cases of this type so treated all but two patients recovered on one course of therapy, and these two responded to a second course. This is not to state that penicillin was effective in 100 per cent of cases, since the over-all rate for the series of 154 cases was 96.1 per cent recovery, over at least a three-week observation period.

2. Conditions which have always been an obstacle to successful treatment, such as prostatic involvement, stricture of the urethra, congenital

TABLE 5.—RESULTS OF SERIAL SMEARS WITH NUMBER OF DAYS BETWEEN TREATMENT AND REVERSION OF DISCHARGE TO POSITIVE

	Start	3 Hours	6 Hours	9 Hours	12 Hours	24 Hours	48 Hours	Number of days following Treatment First Positive Smear Was Obtained
Case 1								
First course	*							
Second course	−	−	−	−	−	−	−	13
Third course	+	−ex	−	−	−	−	−	12
Case 2								
First course	+	+	+	+	−	−	−	24
Second course	−	−	−	−ex	−	−	−	5
Third course	+	†	−ex	−ex	−ex	−ex	−	2
Case 3								
First course	+	+	−	−	−	−	†	18
Second course	−ex	−	+	†	†	†	†	6
Third course	−	−	−ex	−ex	†	+	†	4
Case 5								
First course	*							
Second course	+	+	−ex	−	−	†	†	No positive
Third course	−	−	−	−	−	−	−	No positive
Case 6								
First course	−	−	−	−	−	−	−	5
Second course	−ex	−ex	−ex	†	†	†	†	2
Third course	−ex	−	−	†	†	†	†	No positive
Case 7								
First course	*							
Second course	+	−	−	−	−	†	†	2
Third course	−	−	−	−ex	−	−	−ex	2

* First course given at other installation—no statistics available
† No smears obtainable

anomalies, etc., will continue to call for a careful search for their presence and rectification, if possible, according to well established urologic principles

3 With the exception of six cases in the total of 154 in the series, the clinical course showed a remarkable parallel to the results of the serial smears This is based on the disappearance of the subjective symptoms, and the amount of character of the urethral exudate

4 Delay in the disappearance of the gonococcus from the secretions of the genital tract occurred with sufficient frequency to warrant a cautious attitude in instructing patients on post-treatment conduct And it is to be remembered that although this is an effective therapeutic agent, the criteria of cure of gonorrhea are still as unsatisfactory as ever and the employment of tests of cure are of questionable wisdom

5 One of us (A M) made the observation that the appearance of the leukocytes under penicillin treatment differs greatly from that of those under sulfathiazole With penicillin therapy, the cell membrane, cytoplasmic granules, and nucleus were clearly defined and evenly stained, whereas under sulfathiazole these structures were typically hazy in outline and poorly defined

6 It is felt that it is impossible to make a statement as to the time in which penicillin would bring about a complete and permanent cure, since reversions to positive status were noted both during the course of treatment and also during the follow-up period

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TUBERCULOSIS INCREASE IN ENGLAND A WARNING TO HEALTH WORKERS

Present experience in England presents a warning to public and industrial health workers that must not be overlooked This is the present sharp increase in tuberculosis, which has been especially large among women in general and particularly among young women The cause for this increase in the tuberculosis death rate is the most difficult health problem confronting the health authorities in England It is felt that overcrowding, poor nutrition, worry, and many other factors are all contributory, but as yet the one chief factor has defied recognition, as well as the reason for the predominance among young women —*H Kronenberg M D, in J A M A, Mar 11, 1944*

MULTIPLE SCLEROSIS COMPLICATING PREGNANCY

C. H. PECKHAM, M.D., Cooperstown, New York.

(From the department of obstetrics, the Mary Imogene Bassett Hospital)

AMONG the unspectacular but nevertheless important advances in obstetrics during the present century has been a general increase in knowledge concerning the counterplay between acute and chronic medical disease on one hand and pregnancy, labor, and the puerperium on the other. Such conditions as rheumatic heart disease, tuberculosis, chronic vascular disease, and diabetes afford examples of conditions in which much painstaking work has been done and many articles have been published by both the internist and the obstetrician. Neurologic affections, however, seem to have commanded less attention in this regard, and authoritative references, at least in the American literature, are difficult to find. Particularly is this true of disseminated or multiple sclerosis, a condition ranking high in frequency in any list of nervous-system disorders.

It is not within the province of this essay to discuss in detail multiple sclerosis from a medical standpoint. A brief summary of the condition does, however, seem pertinent to pave the way for further observations. Multiple sclerosis is defined by Christian in the last edition of Osler's *Textbook of Medicine* as "a chronic affection of the brain and cord, characterized by localized areas in which the nerve elements are more or less replaced by neuroglia. This may occur in the brain or cord alone, more commonly in both." The condition most commonly manifests itself in persons between the ages of 20 and 40 and apparently occurs more commonly in men than in women, the ratio being approximately three to two. The cause is obscure. Trauma, fatigue, cold, exposure, intoxications, and infections have all been mentioned. In view of comments by European observers, it is interesting that the Association for Research in Nervous and Mental Diseases in its monograph, *Multiple Sclerosis*, does not include pregnancy as a predisposing factor. Pathologic changes are observed as areas of sclerosis in various portions of the brain and/or cord. In recently invaded areas there is an infiltration with mononuclear cells around the blood vessels with edema. Many authorities believe that the primary change is in the blood vessels—an obstructive thrombotic vascular lesion. Others consider it primarily an inflammatory lesion.

The symptoms and physical signs vary greatly with the individual case. Following early manifestations of the disease there may be marked remissions or even apparently complete recovery. As the disease progresses the sclerosis becomes permanent with signs and symptoms constant. Some workers consider that there are two types of multiple sclerosis: the commonest characterized by remissions and exacerbations, and the other a steadily progressive disease. Motor signs include weakness of the legs and stiffness, usually progressing to a spastic paraplegia, increase of deep reflexes, and loss of abdominal and cremasteric reflexes. Sensation is ordinarily not affected until late in the disease. Slurring speech, nystagmus, diplopia, partial or temporary complete amaurosis, an intention tremor, defective memory, emotional disturbances, and lack of control are commonly observed. In the later stages the patient is usually helpless because of paralysis of the legs. Death may be the result of the disease itself or frequently is due to some intercurrent infection. The average duration of the condition is twelve years, although many patients live much longer.

Evidence that multiple sclerosis may be congenital is subject to considerable scepticism. That a hereditary factor may occasionally be adduced is also a matter of debate, but here the evidence seems more convincing. Further study on this topic is in order and is a matter of interest to the obstetrician from a eugenic standpoint.

Since more than 40 per cent of the recognized cases of multiple sclerosis occur in women and since its incidence is highest in persons between the ages of 20 to 40 (the child bearing period) it seems reasonable to suppose that the condition would be observed not too rarely with pregnancy as a complicating factor. A survey of the English literature during the past twenty years reveals only two articles, one of these a case report, dealing with this subject. Moreover, multiple sclerosis is mentioned as a complicating factor of pregnancy in only two of the currently popular obstetric textbooks. On the other hand, European publications are replete with such articles, many of them including analyses of large series of cases but all of them, unfortunately, containing only scant information in many obstetric particulars.

Although previously several writers had reported one or more cases of multiple sclerosis

Read at the Annual Meeting of the Medical Society of the State of New York, New York City, May 9, 1944.

TABLE 1.—EFFECT OF PREGNANCY ON MULTIPLE SCLEROSIS (BECK)

Case No.	Onset			Made Worse		No Change			Improved After Puerperium
	During Pregnancy	After Delivery		During Pregnancy	After Delivery	During Pregnancy	After Delivery		
1	1		2 3 4 5 6						2 3 4 5 6
2			4						4
3	1				1 2				
4		5		6	6				
5	1				1				
6		8							
7				2	2				
8	1				1				1
9	6				6				
10					4				
11				1	1				1
12		1							
13		2			3				
14				3					
15	8								
16	2					3 4 5	3 4 5		

complicating pregnancy, the first comprehensive survey of the subject was published by von Hosslin in 1904.[1] It was his opinion that the condition throughout pregnancy underwent distinct exacerbation. Following a study of the literature, he reported 2 cases of his own and 21 seen by other German observers. Among the latter was I. Hoffman, whose patient showed considerable exacerbation during pregnancy with a marked remission during the puerperium. On the other hand, Balint followed 2 cases through uneventful pregnancies, each exhibiting severe exacerbation after delivery. Irma Klausner had observed 11 cases and was of the opinion that multiple sclerosis tended to first manifest itself after too closely spaced child bearing, after operative delivery, or after postpartum hemorrhage. If the disease was already present it became more severe throughout the entire gestational process. Stenger saw 2 cases begin ning several weeks after a normal delivery and puerperium. Hoffman reported 5 cases, one of which manifested itself after the first delivery, remained stationary during two more pregnancies, but became worse after the third delivery.

The next comprehensive report was published by Richard Beck[2] in 1913. This author also quotes the experience of several other observers whose opinions diverged considerably. Thus Meyer-Rügg stated that there was no proof that any disease of the spinal cord was unfavorably influenced by pregnancy. Windscheid also felt that spinal conditions were no more likely to occur during pregnancy than at any other time. Edinger believed that although pregnancy itself had no effect, labor with its attendant overexertion might be a causative factor. E. Muller was of the opinion that a patient predisposed to multiple sclerosis but having never shown symptoms of it might manifest the condition during gestation, which provides "many moments of biological crisis." Offergeld claimed that pregnancy itself was not a cause of the disease but that changes occurring during pregnancy might act as an exogenous factor to favor the manifestation of symptoms. Furthermore, the irritability and instability of the nervous system at this time might further act as a predisposing factor. The author himself reported a series of 118 patients with multiple sclerosis, 40 of whom had borne babies. Of the 40, 16, or 40 per cent, showed evidence of a connection between the onset or course of the disease and pregnancy. It was his conclusion that if the disease manifests itself or becomes worse during pregnancy one must consider the advisability of therapeutic abortion or sterilization. Table 1 indicates Beck's experience in the sixteen cases above mentioned. This table shows that in eleven instances the onset of the disease was during gestation or in the early puerperium. Five cases had been diagnosed as multiple sclerosis prior to conception and all of these showed exacerbations during or immediately after pregnancy.

Alpers and Palmer,[3] in an article published in 1929, state that myelitis is one of the most interesting neurologic complications of pregnancy. It may occur during pregnancy, immediately postpartum, or during the puerperium. Many of these cases, in von Hosslin's[4] estimation, are later found to be instances of multiple sclerosis, and with this view Oppenheim agrees. Von Hösslin even states that many cases which begin with peroneal palsy during pregnancy eventually develop into typical examples of multiple sclerosis.

Dimitz,[5] in 1928, quotes an analysis of 445 cases of multiple sclerosis collected from the literature by Kortum.[6] The latter found that 22 of these cases (5 per cent) began during pregnancy, while 32 (7 per cent) manifested themselves immediately after delivery. In addition there were 14 cases (3 per cent) that became much worse during gestation and 23 (5 per cent) showed exacerbations in the puerperium when the disease had been diagnosed prior to conception. Thus, in 445 cases including both sexes and all ages, pregnancy had an adverse effect in approximately 20 per cent. Careful analysis, however, revealed an unstated number of women with multiple sclerosis in whom pregnancy seemed to play no important role.

In 1934, thirty years after his previous work, von Hosslin[7] published a monograph on multi-

TABLE 2.—The Cause or Predisposing Factors in Multiple Sclerosis (von Hosslin)

Accidents and other trauma	55	
Pregnancy and labor	23	= 17%
Febrile illnesses	22	
Fatigue and overexertion	15	
Colds and chilling . .	10	
Shock and psychic trauma	8	
Poisoning.	2	
Total .	135	

ple sclerosis. This contains an exhaustive compilation of the literature together with opinions expressed in personal communications to the author from many authorities. These opinions and conclusions do not add greatly to those already noted. The author now believed that "the influence which pregnancy, labor, and the puerperium has on inciting or exacerbating the disease is well known." Included in the monograph is an analysis of 516 cases and in 135 of these von Hosslin felt that he could accurately select the cause or predisposing factor. Table 2 indicates these supposed causes and shows that in 17 per cent of the total number pregnancy and labor were considered the deciding factor.

The last analysis from the literature to be mentioned at this time was published by Fleck in 1938. This article concerns itself with an expression of opinion on the part of German authorities as to the course to be advised in women of the childbearing age as related to the permission or interdiction for marriage or pregnancy, therapeutic abortion, and sterilization. The consensus of opinion was that marriage should not be prohibited but that pregnancy was generally unwelcome. It was the feeling of some that if a pregnancy was present in a woman with multiple sclerosis abortion and sterilization were uniformly indicated because of probable ill effect to the patient, because of possible transmission to the infant, and because of the fact that the disease made for an unsatisfactory mother. Others took a more conservative view and H. Eymess stated that multiple sclerosis is not an indication for interruption of pregnancy when the condition has improved in the past six months but only when definite progress of the disease has occurred during pregnancy. It was von Hösslin's final conclusion that abortion is indicated only if multiple sclerosis develops or becomes worse during a pregnancy. Even then sterilization is not to be insisted upon if the mother wishes at a later date to attempt another child.

Thus far the discussion has been limited to the effect of pregnancy on the disease. The question now arises, "What effect, if any, does multiple sclerosis have on pregnancy, labor, and the puerperium?" If one omits the very questionable congenital or hereditary transmission, the literature is singularly silent on this subject. Apparently the pregnancy progresses to term, normal labor supervenes, a living child is born, and the puerperium presents no undue obstetric complications. In the presence of any chronic disease the incidence of abortion and premature labor would be expected to be somewhat higher than in normal individuals. Furthermore, such patients might well exhibit puerperal or intercurrent infection somewhat more frequently. An item of considerable obstetric interest is manifested in two patients exhibiting both multiple sclerosis and pregnancy who were observed during recent years at the Mary Imogene Bassett Hospital. A brief résumé of these two cases follows.

Case Reports

Case 1.—E. H. This patient, a 26-year-old white woman, was first observed in the hospital in July, 1930. Her chief complaint was of difficulty in walking for a period of three months. This was associated with numbness and tingling in the legs. Other symptoms had been slight blurring of vision, intermittent headaches, partial incontinence, and urgency of urination. Physical examination revealed nystagmus, bitemporal pallor, absent abdominal reflexes, hyperactive deep reflexes, diminution of pain and touch sensation below the umbilicus, loss of vibratory sense in the lower extremities, marked ataxia, and spasticity of the lower extremities, more marked on the left. Laboratory findings were essentially negative, the spinal fluid was under normal pressure, and showed no increase in cells. Serologic tests for syphilis on both the blood and spinal fluid were negative. After her discharge from the hospital she was followed routinely in the outpatient department, the condition showing steady progression. The last menstrual period began on August 15, 1930. Throughout pregnancy the advance of the disease was, if anything, more rapid. Being near term and living at a considerable distance from the hospital, she was again admitted on May 12, 1931. On May 15, 1931, fairly strong and rhythmic uterine contractions could be palpated, and these continued. The cervix slowly dilated. Castor oil and quinine failed to increase the strength, frequency, or duration of these contractions, which felt to the palpating hand like those of normal labor. At no time was the patient aware of the contractions nor did she experience the slightest pain. On May 18 the patient finally delivered spontaneously a normal infant weighing 7 pounds 2, ounces. No anesthetic was necessary. Pituitrin administered postpartum caused strong contraction of the uterus. Following delivery there was little if any change in her condition for a year, but after this a spontaneous remission occurred. In August, 1934, she was rather remarkably better than when last seen. At this time she was two months pregnant and after due

consideration therapeutic abortion was performed. This procedure was done under gas-oxygen-ether anesthesia, so that perception of pain was not again tested. The patient was not again seen until 1938, when she was again pregnant. The remission previously noted had apparently endured for the intervening four years. At this time therapeutic abortion followed by tubal sterilization was performed. Following the latter procedure there was a marked febrile episode associated with a Staphylococcus aureus bacteriemia, the patient making so slow a recovery that she was not discharged for three months. Despite all this, however, there was no evidence of an exacerbation of the multiple sclerosis and when she was last seen (1940) her condition was less incapacitating than at the end of her term pregnancy nine years before. Sufficient signs and symptoms were still present so that it was felt that the initial diagnosis of multiple sclerosis had been correct.

This case seems of interest from several points of view, namely:

1. Steady progression of a previously existing multiple sclerosis throughout pregnancy.

2. A slow but completely painless labor ending in spontaneous delivery. No effect was observed on uterine contractions from the administration of castor oil and quinine. There was prolonged contraction of the uterus after delivery and following the administration of pituitrin

3. A remission occurred after a year after delivery and endured through two therapeutic abortions, tubal sterilization, and a marked febrile episode associated with Staph. aureus bacteriemia.

Case 2.—The patient, a 26-year-old primigravida, was first seen in the hospital in May, 1943. The first symptom, that of dull and persistent occipital headache, had manifested itself in November, 1939. Two months later she was admitted to another hospital because of numbness of the left side of the tongue and lip, difficulty in opening her mouth, and difficulty in swallowing. On examination loss of sensation along the fifth nerve distribution on the left was found. One month later blurred vision and difficulty in walking were noted. Re-examination showed amblyopia, anesthesia of the head and face, and a loss of taste sensation over the anterior two-thirds of the tongue. The deep reflexes were hyperactive and the abdominal reflexes were lacking. These signs and symptoms cleared remarkably, but a third episode associated with blurred vision, diminution in hearing, and blurred speech occurred in August, 1942. The last menstrual period occurred October 15, 1942. When seen in the hospital, the patient was in excellent general condition, the chief find
reflexia and absen
nancy progressed
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weighing 6 pounds, 5 ounces. The labor was stated to be six hours and consisted of relatively mild cramps in the lower back. No typical labor pains were observed throughout parturition. There was a slight and temporary recrudescence of symptoms in the early puerperium but when last seen (December, 1943) the condition showed no aggravation.

Discussion

Since the cause of multiple sclerosis is as yet unknown, it is impossible to offer positive statements as to the actual effect of pregnancy on the disease. Clinical experience, however, would seem to indicate the following as a rational course to pursue with the individual patient until more definite information is available. The disease is a chronic one and incapacitating, almost always progressing to a fatal termination. For this reason it seems logical to discourage matrimony once the diagnosis is made and confirmed. Multiple sclerosis manifests itself for the first time during pregnancy or shortly after labor too frequently to make it a mere matter of coincidence. It is, however, impossible to state whether gestation acts in some unknown way as a causative factor or a predisposing cause. Possibly alterations in the central nervous system normally occurring during pregnancy may play a role. Possibly the spasm of the smaller arterioles such as is observed in toxemia of pregnancy might initiate a train of events culminating in sclerosis of certain vessels in the brain and cord. Against this idea there has been presented no evidence that multiple sclerosis more commonly follows a toxemic pregnancy. Generally speaking, it is difficult for the obstetrician to consider a normal pregnancy, labor, or puerperium to be a period of particular stress or crisis to the individual. On the other hand, complications do occur which render the process a shocking one to the patient. It is believed by some that in all cases the multiple sclerosis has antedated the pregnancy but in a form so subliminal that symptoms have not occurred and diagnosis has been impossible until the added mysterious influence of pregnancy has accelerated the condition to a point where it becomes obvious. Whatever the cause, the pregnancy factor is in most cases evident and for this reason alone the married woman with multiple sclerosis should be warned against pregnancy. As an additional basis for this advice, there should be noted the fact that any crippling disease such as this, and particularly one in which emotional and mental disturbances are observed, renders the individual a most unsatisfactory mother.

If the patient is already pregnant when seen for the first time, the problem becomes somewhat different. A reliable history of several members of the family having had the disease will rarely be obtained and hence will usually play no role in a decision as to the advisability of therapeutic abortion. Furthermore, a fair number of cases have been observed in which pregnancy did not

seem to alter at all the course of the disease. Indeed, in any condition characterized by marked exacerbations and remissions, it will often be difficult to state definitely that the pregnancy was the actual cause of a period of increased intensity. Moreover, therapeutic abortion itself may cause mental and physical shock to the patient. Routine therapy is rarely a wise medical policy and the patient's welfare is usually best served by individualization. The pregnant woman with multiple sclerosis should be carefully studied. If the condition is far advanced or is progressing more rapidly since the onset of gestation, abortion should be advised. If the disease is in its early stages and shows no evidence of exacerbation, the pregnancy may be allowed to continue. The patient should be observed at frequent intervals by both the neurologist and the obstetrician. If other obstetric or accidental complications develop, making the situation more hazardous to the patient, termination of the pregnancy will probably be indicated. The labor should be conducted in the most conservative manner; the patient should be spared the strain of the second stage so far as possible; excessive postpartum blood loss should be scrupulously guarded against; and prolonged rest throughout the puerperium should be insisted upon. It will probably be better if the patient does not attempt to nurse her baby. In most cases sterilization in the puerperium by whatever means seem most conservative is to be advocated.

In conclusion, a plea should be made for the publication of reports of cases of multiple sclerosis complicating pregnancy. The combination is sufficiently rare so that only in this way may we increase our knowledge of the counterplay between the two conditions.

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ADDITIONAL MEDICAL OFFICERS AND NURSES TO BE APPOINTED IN PUBLIC HEALTH SERVICE

Thomas Parran, Surgeon General of the Public Health Service, Federal Security Agency, announced on January 9 the date of examinations for appointment of additional medical officers and nurses in the commissioned Regular Corps of the Public Health Service. Interviews began February 5.

Written examinations are scheduled for April 23, 24, and 25.

Medical officers will be appointed in the grades of assistant surgeon and senior assistant surgeon, corresponding with the grades of first lieutenant and captain in the Army. Applicants must be citizens of the United States, graduates of recognized medical schools, and must be serving, or have served, a year's internship. Senior assistant surgeons must have four more years of professional training or experience.

Nurses will be appointed in the grades of junior assistant nurse officer, assistant nurse officer, and senior assistant nurse officer, corresponding with the grades of second lieutenant, first lieutenant, and captain in the Army.

The schedule of the Board of Examiners to meet applicants in Marine Hospitals is as follows: Boston (Brighton), February 5, 6; New York (Stapleton, Staten Island), February 7–10; Baltimore, February 14, 15; Norfolk, February 16, 17; Savannah, February 21, 22; Cleveland, February 26, 27; Detroit, February 28; Chicago, March 1–3; Kirkwood, Missouri (near St. Louis), March 12–14; Louisville, March 15; Memphis, March 17; Galveston, March 21, 22; New Orleans, March 23, 24; Mobile, March 26; San Francisco, April 5–7; Seattle, April 10–12.

Interviews also will be conducted in the U.S. Public Health Service Dispensary, Washington, D.C., February 12, 13, March 5, 28, and April 18; the Office of Indian Affairs, Minneapolis, April 16; the Public Health Service Hospitals, Fort Worth, March 19, 20, and Lexington, Kentucky, March 16; the Office of Malaria Control in War Areas, Atlanta, February 23; and the Public Health Service Relief Station, 406 Federal Building, Los Angeles, April 3, 4.

Application blanks may be obtained by writing to the Surgeon General, U.S. Public Health Service, Washington 14, D.C., or at the time the applicant appears before the Board of Examiners.

DIFFERENTIAL DIAGNOSIS OF EARLY LESIONS OF VENEREAL DISEASES

Borris A Kornblith, M D , F A C S , New York City

THE object of this communication is to set down the present minimal diagnostic criteria for the differential diagnosis of early acute lesions of the more common venereal diseases Stokes, in 1936, stated, The past fifteen years in clinical syphilology have provided the basis for as complete a reversal of diagnostic methods as applied to early syphilis as can be found in the field of medicine The diagnosis of early syphilis is no longer a clinical but a laboratory problem The collapse of clinical criteria has been brought about by the darkfield examination of genital lesions and by the blood Wassermann reaction "[1] What Stokes said about syphilis, as applying in 1921, may be restated now in 1945 with equal emphasis on behalf of the so-called minor venereal diseases —i e , chancroid, lymphogranuloma venereum, and granuloma inguinale [2]

The "primary lesions' of the venereal diseases are all inflammatory reactions to inoculation with specific agents The lesions are essentially granulomas and depend mostly upon the isolation of the individual causative agent for their specific identification Wherever possible, this procedure is a *sine qua non* in the diagnosis of the early acute lesions The clinical appearance of the lesion is no criterion for the recognition of any specific disease entity It is only a 'clinical hunch" at best, even when that initial lesion is caused by a single entity When the initial lesion is caused by two or more concurrent infections, an exact clinical evaluation is hazardous and unreliable An analysis of a series of cases of chancroid[3] and another series of cases of lymphogranuloma venereum[4] showed that the majority of patients suffering from these venereal diseases have more than one venereal disease at the time of their examination Thus, any records based upon clinical criteria alone must necessarily possess a very large margin of error The insistence that any clinical criteria can be relied upon disregards the very painstaking and accepted work of Schaudinn and Hoffmann (the spirochete pallida, 1905), Ducrey (the Ducrey bacillus, 1892), Donovan (Donovan bodies, 1905),[5] and Neisser (the gonococcus, 1879) The characteristic pathologic findings of lymphogranuloma venereum have been described adequately [6]

How reliable are the methods of identification of the specific agents from primary lesions? The spirochete pallida may be demonstrated on darkfield examination from seronegative primary syphilitic lesions in 94 per cent of the cases [1] In some of the remaining 6 per cent, the diagnosis can be ascertained by gland puncture The Ducrey bacillus may be demonstrated on smear from the chancroidal lesion in 88 per cent of the cases by means of the Unna-Pappenheim stain [3] In the remaining 12 per cent of the cases, a therapeutic test using the sulfonamides will help to clarify the diagnosis Donovan bodies may be demonstrated on smear from acute lesions of granuloma inguinale in over 95 per cent of cases by means of Wright's stain [7] The gonococcus may be identified on smear and culture from any unusual lesion The demonstration of the virus bodies of lymphogranuloma venereum is still too difficult for routine laboratory procedure However, a characteristic histopathologic lesion may be seen in the excised lymph nodes in over 80 per cent of the cases [6]

Thus, before any confirmatory tests are indulged in, it is possible to arrive at a correct diagnosis in most of the cases When a primary lesion on the genitalia is observed, the following procedures are available and should be carried out first

1 For the spirocheta pallida, repeated darkfield examinations to exclude syphilis

2 For the gonococcus, repeated smears and cultures to exclude gonorrhea

3 For the Ducrey bacillus, smears stained by the Unna Pappenheim stain to rule out chancroid

4 For Donovan bodies, a smear stained by Wright's methods to rule out granuloma inguinale

5 For spirocheta pallida, and the identification of any micro organisms, or the aspiration for making Frei antigen, a "gland puncture "

When all of these methods are utilized and all are found negative, the following confirmatory tests should be added

1 A blood Wassermann reaction to exclude syphilis

2 Biopsies of the local lymph nodes to exclude lymphogranuloma venereum, acute lymphadenitis, tuberculosis, metastatic carcinoma, or blood dyscrasia

3 Biopsies of the local lesions to rule out carcinoma in particular

4 Aspiration of any pus present to make Frei antigen and to test it on known and control cases

5. The performance of the known intradermal reactions—the Frei test,[4] the Ducrey vaccine test,[3] and the granuloma inguinale intradermal reaction.[8]

Biopsies of the local lesions are not of great value in the differential diagnosis of the common venereal diseases. Until recently the description of the histopathology was actually that of granulation tissue resulting from secondary infection. At present, there is no clear-cut histologic differentiation of the primary lesions.

Comment

From the foregoing, it is important to give due emphasis to our essential differential diagnostic procedures which are at present available in the diagnosis of early-lesion of venereal diseases. It is likewise important to give each of these diagnostic methods its proper evaluation. When a single test presents inadequacies, a confirmatory test may be essential and sufficient to establish the correct diagnosis. Mixed infections are more common than is generally realized. Complicated lesions may be differentiated and analyzed when all our diagnostic methods described are diligently followed through. The clinical appearance of a lesion is the least important factor in the diagnosis of early lesions of the common venereal diseases.

2 East 86th Street
New York City

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RED CROSS EXPANDS WHOLE-BLOOD PROGRAM

In response to urgent requests from the Pacific battle area for more whole blood, the American Red Cross is extending the West Coast whole-blood project to include San Diego and Portland, it was announced on January 9 by Basil O'Connor, Red Cross National Chairman. At the same time, procurement of whole blood in San Francisco, Oakland, and Los Angeles is being stepped up.

Mr. O'Connor said that the San Diego and Portland centers will begin collecting whole blood as soon as arrangements can be completed. With this addition, all West Coast centers will be procuring whole blood as well as plasma.

He said further that the expansion had been authorized at the request of Vice-Admiral Ross T. McIntire, Surgeon General of the Navy, and was based upon urgent requests from the Pacific theater to increase whole-blood shipments without delay. Whole blood is used primarily in hospitals and aboard hospital ships to supplement the use of plasma in the front lines.

In addition to the Pacific whole-blood project, five Centers on the East Coast are procuring whole blood for Europe, Mr. O'Connor stated. These are Boston, New York, Brooklyn, Baltimore, and Washington. Type O whole blood procured by these Centers is flown daily to Europe by the Army Air Transport Command, while the whole blood procured on the West Coast is flown to the Pacific by the Naval Air Transport Service.

Besides the ten East and West Coast Centers engaged in procuring both whole blood and plasma, twenty other Centers procure blood for plasma. A total of approximately 100,000 donors a week is required to keep the armed forces fully supplied, Mr. O'Connor said.

"In the past," Mr. O'Connor stated, "appeals for blood donors have led to numerous requests that the Red Cross set up additional procurement facilities in other cities. Unfortunately, this is impractical, partly because Centers must be located near the processing laboratories and also because the present Centers and mobile units can provide all the blood required. It should be understood, therefore, that appeals for donors are directed only to persons living in or near Blood Donor Center cities. With their continued cooperation, there is no question that the Red Cross can keep the armed forces fully supplied."—*American Red Cross News Service Release, Jan. 9, 1945*

X-RAY SURVEYS SHOULD INCLUDE WHOLE COMMUNITY

Sound public-health practice demands that the method used in mass radiography for the control of tuberculosis be one which benefits the largest number of persons in industry or the community. When available funds are limited, it is of greater value to examine 100,000 persons with small films and miss a few minimal cases than to examine only one-tenth of that number at about the same cost, using large celluloid films and leaving 90,000 persons without benefit of any x-ray examination whatever. —*H. E. Hilleboe, M.D., and D. M. Gould, M.D., J.A.M.A., May 24, 1944*

ATTITUDES TOWARD SEX

HAROLD KELMAN, M D , New York City

THE purpose of this communication is to discuss some of the attitudes toward sex in our culture and the meaning of such attitudes Reference is made to various types of sexual activity in children and adults The difference in what is regarded by men and women as being sexually derived is described Some comments are made about the manifestations of symbolic sexual thinking in our waking and dream life

We will first discuss sex activity in children Many of us attempt to blind ourselves to the normal and abnormal manifestations of sexual curiosity in childhood It is something of an anomaly in our society that the natural curiosity of children is applauded in all directions except with respect to biologic facts A child is aware of its body before it has any real appreciation of self It is normal and natural for it, therefore, to explore all the bodily orifices and to stimulate any parts of its body for pleasure Yet the attitude of the majority of parents is such that the child's natural curiosity becomes inhibited and frustrated This consequently leads to the development of abnormal fears with resultant distortions of interest and activities in bowel, bladder, and genital functions

Masturbation occurs at some time and in some form in the normal development of all individuals Our attitudes of disapproval toward such activity are so drastic, however, that many adults have repressed the memory of such experiences This is particularly true with women, who tend to feel more guilty about masturbating than men because of the sexual attitudes still operative in our culture Normally, with the advent of adolescence and a growing interest in the opposite sex, the emphasis on masturbation lags and is supplanted by the natural desire for heterosexual relations Unfortunately, the mistaken notion still exists that masturbation is a particularly harmful practice Masturbatory activity is no more injurious than any other activity engaged in to excess What has significance for us primarily are the attitudes regarding this activity rather than the activity itself

Adolescence calls for drastic emotional adjustments in all children Female childen today are somewhat better prepared for the advent of menstruation Consequently they do not view it with the dread and horror that they formerly did An interesting expression of our cultural attitude toward menstruation is manifested by the frequency with which women refer to it as "the curse"—a deep-rooted remnant of the belief in original sin and the physical inferiority of women Today an increasingly larger number of women limit their activities less during the menses A widespread prejudice against sexual activity during menstruation still exists

Participation in sexuality during menses is quite common and practiced without physical or psychologic injury It might be added that in these times of war, when servicemen are home on leave for limited periods, it would be good mental hygiene to dissipate such unfounded prejudices which can have, and frequently do have, harmful emotional effects on both parties concerned

The duration and frequency of sexual activity are not only matters of individual preference, they are also strongly affected by cultural attitudes In some cultures, for example, sexual activity is encouraged in the young, whereas in our own, as we have seen, even self-exploratory activity in children is frowned upon

As to the duration of sexual life, we accept without basis that sexual activity necessarily wanes with advancing years Factually, many men and women in the fifties and even in the sixties enjoy frequent sexual intercourse with orgasm and considerable satisfaction

In all cultures, sexual activity may become perverse in its object or its aim Homosexuality may be said to exist, therefore, when a person of the same sex is taken as a love partner to function in an active or passive role or both Contrary to widespread belief, there are very few individuals in whom we can definitely say that there is a biologic basis for homosexuality Resorting to endocrine therapy as a first remedy before a thorough psychologic analysis robs the individual in question of a real opportunity to obtain mental health and also thwarts investigation of this problem Clinical experience has further proved that a number of homosexuals can be treated by psychologic methods

By sexual perversion we generally mean that the activity is distorted All the orifices of the body are used for entrance and contact In addition, the sexual activity may be limited to one aspect of the whole sequence of acts leading to the consummation of heterosexual or homosexual activity Most of these activities may be considered as part of normal sexual activity as long as they are not indulged in as an end in themselves or for the satisfaction of humiliating, or other neurotic tendencies on the part of either or both

Lecturer American Institute for Psychoanalysis

partners. We would then have what we consider pathologic deviations in the sex act.

The frequency of sexual activity, whether marital, premarital, or extramarital, is a question of the desires of the two persons concerned in a mutually cooperative activity for the purpose of pleasure and procreation. The satisfactory achievement of this mutual cooperation is difficult to obtain in our culture because the feeling that the enjoyment of sex is sinful is still so deeply ingrained in many allegedly emancipated members of our society.

Likewise in our society, the acceptance of the double standard for men and not women is culturally determined. A man is supposed to "sow his wild oats" in premarital relationships. This attitude, however, is rapidly changing with the increase of career women. This change has been hastened by the war through the departure of large numbers of men. Sexual freedom for women has been further aided by the dissemination of sex hygiene information in the younger age groups and through the greater availability of contraceptive aids which has lowered the frequency of venereal diseases and illegal operations.

The need for extramarital sexual relationships is not an expression of the lack of sexual satisfaction with the partner, but rather an evidence of a deeper disturbance in the whole interpersonal relationship manifesting itself in a disturbance of the sex act. Thus, a husband or wife may rationalize their right to indulge in extramarital affairs because their marital partner is sexually unresponsive. Upon closer examination, it often develops that the whole fabric of their relationship is emotionally warped and devoid of pleasure.

Any discussion of extramarital relationships usually turns, sooner or later, to the topic of frigidity in women. Here we have a classic example of putting the cart before the horse. Our cultural attitudes specifically foster frigidity in women and then insist that women are more difficult to arouse sexually than men. This is a biologic fallacy. Well-adjusted women are just as eager for sexual activity as are well-adjusted men; they are aroused just as easily and obtain equally as much pleasure from the sexual act.

There are, of course, degrees of pleasure in sex as well as in all other human activities. Normally pleasure is obtained from all aspects of sexual activity and, depending upon mutual consent, may be of limited extent, or continue on to complete orgasm. The romanticized version of sex is a state in which the individual is carried away and there is a loss of self. It is something literally "out of this world," the ultimate in ecstatic bliss. Actually, it is really nothing of the kind. What we have here is the use of sex as a neurotic escape mechanism, much as may be observed in individuals who use hypnotics, alcohol, and drugs for the same purpose. Factually, a natural orgasm is a heightened state of pleasure with conscious awareness, as a culmination of heterosexual activity by two mutually cooperative individuals. The romanticized notion of loss of self, therefore, actually prevents the individuals from full, conscious enjoyment of a highly pleasurable act. Unfortunately, in our culture, sex and love are synonymous terms. Sex does not equal love, nor does love equal sex. Love can be defined as a state of pleasurable mutuality which when present between two persons of the opposite sex may have as one of its aspects pleasurable sexual activity.

From what has been noted previously, it is not surprising that there are cultural determinants for the use of "man" and "woman." We use the word "man" in an anatomic sense, as a qualifying adjective and as an all-inclusive symbol to denote the human race. The word "woman," on the other hand, while it has anatomic and qualitative meanings, is never used in our culture to denote the human race. It might be argued that "man" is merely a generic term, which for convenience continues to be used and which has long since lost its essentially "masculine" connotation. But how, then, explain that the qualities "masculine" and "feminine" also have fallacious connotations in our culture?

"Womanly," for example, or "feminine" is synonymous with softness and warmth, while "manly" and "masculine" denote strength and virility. These categoric attributes are merely projections, however, of our cultural attitudes. They are not biologic characteristics of men or women. They are rather accepted and culturally predetermined characteristics of what we believe to be the difference between the sexes. Actually, the qualities of warmth and strength are innate to all human beings.

In an attempt to sustain the contention that women are basically different from men, or vice versa, the point is frequently made that, after all, only women can bear children. But, for that matter, only men can impregnate women. Then again, the position is often taken that women can have many children from one or many men, with the implication that this makes them radically different from men. But those who argue that point frequently fail to mention the fact that one man can be the father to many children by one woman or many women. This is merely by way of illustrating that the use of an anatomic argument to prove a psychologic point is both an evidence of unclear thinking and an attempt to evade the real issue. What we are

interested in is not the sexual anatomic differences per se, but the psychologic attitudes toward those sexual anatomic differences, as determined by our particular cultural patterns

Men who are emotionally insecure often attempt to obtain a feeling of security by assuming a dominating position toward women This is as true in our contemporary society as it was in the Victorian era But in the last few years, social changes have been so rapid that these men feel threatened by the increasing emancipation and freedom which women have obtained Such men feel that the way things are going, the time is not far off when women will become uncontrollable and completely out of hand Yet at the same time these men, who assume the role of the benevolent stronger male caring for the helpless and weaker-minded female, complain bitterly but secretly enjoy the fact that women are "different" and not endowed with the sense of justice, comradery, stability, and clear-headedness which they feel are peculiarly male characteristics The point that this type of man overlooks is that a woman functioning as a person in a real, cooperative, interpersonal relationship would not be such a problem to him and would not have to exact or have thrust upon her the alleged special privileges, prerogatives, and deferences shown to her in our culture

Although it may appear that men are mainly responsible for this situation actually women unconsciously, and often consciously, nurture and invite just those attitudes They feel that they are gaining by these special privileges but at the same time contradictorily want to be treated 'just like men" Clearly they would be better off without these special prerogatives or being treated "just like men" if they devoted their energies to becoming their own selves

Our social attitudes toward sex have also created an extensive vulgar male vocabulary in which sexual activity is referred to in violent and humiliating terms This is a direct reflection of our deeply ingrained conception of sex as a violent and humiliating assault on a woman by a man in which she is harmed and is the unwilling partner Our romantic literature fosters this general conception and, as a result, many men and women have to recreate this neurotic setting before they can obtain sexual "satisfaction" Usually, however, women do not express themselves sexually in vulgar terms In accordance with the rule of the romantic game, all references to the sexual act must be indirect A man may be referred to as having a nice "physique' and being "clean-limbed," but any direct reference to the male genital region is strictly taboo

Sex can be used for the same neurotic purpose by both men and women And what holds true for sex holds for any thought, feeling, or act which is shared by two individuals What concerns us primarily is the meaning which that thought feeling, or act may have for the individual in relationship to himself and to those with whom he lives

Instead of the sexual act being indulged in for pleasure, it is more often used for the purposes of humiliation hostility, and disparagement as well as for the purpose of power and prestige Men frequently use it to gain approval, to inflate their sense of importance, and to bolster their self-doubted potency Many women use sex as a lure to ensnare their men as well as to obtain gifts and admiration as an object of sexual desire Inasmuch as all of these are perverted uses of the original function of the sexual act, they inevitably leave the participants with a feeling of dissatisfaction

One of the most common symptoms of sexual maladjustment in male patients is premature ejaculation Modern psychoanalytic research has revealed that one basic cause of the difficulty these organically sound men have often lies in their hostile attitude toward women [1] They do not want to give women any sexual satisfaction and ejaculate prematurely out of unconscious spite It is a form of protection, a means of preventing them from coming close to a woman for fear that she might sense their hostility and retaliate in kind In a broader sense, premature ejaculation may also be a symptom of a generally antisocial attitude Some men are afraid of any close human contact because it might prove a threat to their false notions of independence and misogynistic self-sufficiency Frigidity in women may also have a similar connotation, or it may be that they must deny having had any pleasure Admission of such pleasure might mean to them the existence of an obligation which they cannot or do not want to repay

The excessive emphasis on sex in our culture is manifested in our dream language Many dreams which seem to be purely sexual in nature are actually only superficially concerned with sex [2] Modern psychoanalysis has revealed many significant social attitudes in the character of the dreamer which have little to do with sex, per se

For example, a young man dreams that he lies on a couch He has a long penis which reaches from himself to a woman who stands some distance off At first glance, this dream seems to be concerned with the problem of potency The patient's history reveals that it has quite a different meaning Factually he has no sexual problem All his life this patient has insisted on lying back while women were at his beck and call, assumed all responsibility, and were the active partners in the relationship In other words,

women were relegated to a safe distance, near enough to be enjoyed in carefree comfort, but sufficiently far away to make it impossible for them to affect him personally or to encroach on his privacy. His dream, then, reveals his abhorrence of closeness in a relationship and his distaste for actively assuming any kind of direct responsibility, as well as a desire to dominate by remote control.

Again, a woman dreams she is nude in bed with a naked man on either side of her, an apparent confession of extreme sexual lust. But in real life, this woman always managed to have two men on her string as a protection, because she wanted neither and feared both. She played one against the other for what she could get out of them and so prevented either from coming close to her and making demands. The disturbance in her sexual relationship as expressed in her dream was merely a manifestation of her disturbed interpersonal relationships in general. Actually, this woman was not only frigid but felt nauseated at the idea of a man kissing her; she never had any sexual experience or anything remotely approximating it.

It is fairly common for a female patient to "fall in love" with her analyst. She may overtly or covertly suggest a sexual relationship, and she may even believe that her desires are quite sincere and legitimate. Yet, on examination, we commonly find that the proposed liaison has ulterior motives. The patient either feels that she could dominate the situation if she could make the analyst respond to her advances, or else it might be a means of breaking off the analytic relationship, or a desire to compromise the analyst professionally. If this could be accomplished, everything unpleasant or unacceptable which the analyst had said could, she feels, be invalidated on the grounds of lack of professional dignity or ability.

Again, such a patient might be using sex to get so close to the analyst that he would not be able to see her clearly. "Love" manifested for an analyst of the same sex may also be used for similar purposes and need not be an indication of homosexuality.

The above detailing of some of the factors operating in a male analyst-female patient relationship is also in a sense culturally determined. Our attitude is: "Why, of course such situations would naturally arise in such an intimate relationship!" However, we see the same mental phenomena manifesting themselves in a female analyst-male patient relationship. This fact is being statistically verified by the experience of the increased number of female analysts treating male patients.

In this manner, several other fallacies are being dispelled. Male analysts are not generally superior to their feminine colleagues. Also, male or female patients can work equally well with an analyst of either sex. The success of the therapy depends upon the competence of the analyst and the incentive of the patient to work cooperatively toward mental health regardless of the sex of the patient or analyst.

In the foregoing descriptions of the various sexual activities and cultural attitudes toward sex, an attempt has been made to present a few of the more basic aspects of the modern psychoanalytic viewpoint toward this problem. Modern psychoanalysis emphasizes the importance of the individual and his relationship to himself and to those with whom he lives and works. It believes that individuals, singly, as well as in groups, know what is best for their welfare, have the capacity within themselves to attain a fuller realization of their potentialities as human beings and to create for themselves a society in which cooperative participation for mutual benefit can become a reality. Such a society will respect them because they will have courage and integrity and, above all, because they will believe in the intrinisic value of human life and human dignity.

1230 Park Avenue
New York City

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HERMANN M. BIGGS MEMORIAL LECTURE ON DDT

The Hermann M. Biggs Memorial Lecture, which is held annually in Hosack Hall at the New York Academy of Medicine under the auspices of the Committee on Public Health Relations, will be delivered this year on Thursday, April 5, at 8:30 P.M. by F. C. Bishopp, Ph.D., assistant chief in charge of the Research Bureau of Entomology and Plant Quarantine of the United States Department of Agriculture. The subject of the lecture will be "The Medical and Public Health Importance of the Insecticide DDT." This lecture is open to the general public.

History of Medicine

A BRIEF HISTORY OF DERMATOLOGY IN NEW YORK CITY ITS SHARE IN THE PROGRESS OF THE SPECIALTY IN AMERICA

PAUL E BECHET, M D , Elizabeth, New Jersey

NEW YORK can claim many important contributions to the advance of dermatology and it is the author's intention to substantiate this statement by submitting evidence which can prove this truth beyond peradventure Lest this relation overstimulate the ego of our present generation of New York dermatologists, the author hastens to venture the opinion that such an extraordinary development of a medical specialty in this city is not due to a group of supermen, but rather to the very primitive law of supply and demand New York has always been America's largest city, and naturally, the larger the population, the greater are its dermatologic ills, and the demand for experts to relieve these ills is consequently so great as to stimulate and activate the study of dermatology to an unusual degree, this was evidenced as early as 1869, when as many as twelve men proved sufficiently interested in the specialty to found the New York Dermatological Society, which is the oldest one in the world

Today, American dermatology is so important a field of medicine that it has been given professorships in practically all of the medical colleges, has an independent department, often the largest from the point of view of floor space and attendance, in the leading hospitals, with a number of hospitals devoted entirely to dermatology and completely self-contained in all allied branches, two dermatologic journals, one covering the entire dermatologic field, the other limited to dermatologic research In dermatology alone, there are four national bodies with an enthusiastic and active membership, six sectional societies, eleven state, and twenty local societies The City of New York alone supports seven of these All of this superlative progress is not dependent on the activity of recent years but rather on the enormous amount of groundwork done by a small band of devoted, tireless pioneers in their chosen field of medicine It was they who plodded through the tangled skeins of dermatologic symptomatology and classification, depending entirely on exhaustive clinical notes, trained analytic minds, and unusual acuity of vision—all of this in the face of some condescension and even contempt on the part of specialists in other branches of medicine One of the leading dermatologic pioneers in New York who honored the author with his friendship related, as a humorous incident only, that, in speaking of him, a prominent surgeon of this city stated some fifty years ago that 'while he was hell on a pimple, a boil was too much for him" Sir Erasmus Wilson must have also sensed this same contempt, for he once predicted that the day would come when skin diseases would receive equal recognition from the other specialties

American dermatology began in New York on June 22, 1836, when the Broome Street Infirmary for Diseases of the Skin was opened under the direction of Henry Daggett Bulkley [1] One year later he instituted a series of lectures on cutaneous diseases at the Broome Street Infirmary, and continued these lectures during the next three years at the Broome Street School of Medicine, at the New York Dispensary, and later at the College of Physicians and Surgeons, then located on Crosby Street, delivering nine courses of lectures here during the following ten years Bulkley was therefore not only the first to lecture on dermatology in America but the first to practice the specialty exclusively in America He was born in New Haven, Connecticut, on April 4, 1804 He received an academic degree from Yale College in 1821 He studied medicine at Yale and graduated in 1830 After graduation he went to Paris, in 1831, where he became the first American dermatologic student under Biett and Cazenave, at the old Hôpital Saint-Louis He translated into English the *Manual of Diseases of the Skin* by Cazenave and Schedel in 1845, and in 1851 edited an American edition of Gregory's *Eruptive Fevers* At different times he was president of the New York Academy of Medicine and the New York County and New York State Medical Societies It was at his home at 42 East 22nd Street that the New York Dermatological Society was founded, and he was its first president He died of pneumonia on January 4, 1872, in his sixty-eighth year

In 1870, a year after the founding of the New York Dermatological Society, the first journal on

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dermatology in America made its appearance in New York under the editorship of M. H. Henry. It was entitled *The American Journal of Syphilology and Dermatology*, and under different titles but without interruption it has appeared ever since. In its span of seventy-four years it has proved invaluable to American dermatologists and its appearance caused a tremendous increase in dermatologic activity throughout the country.

In the year 1876 two important dermatologic events occurred. The first was the publication of the second textbook on dermatology in America;[2] its author was Henry Granger Piffard, of New York, and it was published by Macmillan & Co. in New York. The second was the founding of the American Dermatological Association at the University of Pennsylvania on Wednesday, September 6, 1876, at 6 P.M. Of the fourteen men present at the organization meeting, six were New Yorkers, thus illustrating the rapid increase of interest in dermatology in New York.

Henry G. Piffard,[2] the author of the second American textbook on dermatology, graduated in medicine from the College of Physicians and Surgeons in 1864, and studied dermatology abroad, spending most of his time at the University College Hospital in the dermatologic clinic of Tilbury Fox. On his return to New York he rose so rapidly that within a few years he attained such dermatologic eminence that he helped found the New York Dermatological Society, the American Dermatological Association, and received in 1871 the first appointment as visiting dermatologist to the City Hospital, Welfare Island, New York, which was the first institution in the United States to establish dermatologic wards.[4] Piffard was a great teacher, and as early as 1874 became professor of diseases of the skin at New York University, and in 1875 started postgraduate instruction, which he kept up after 1882 at the New York Post-Graduate Medical School and Hospital.[5] Piffard also wrote the first American textbook on dermatotherapy in 1881, but as early as 1868 had published a translation of Hardy's *The Dartrous Diathesis or Eczema and Allied Affections*. Piffard was a dynamo of energy, a genial fighter, avid hobbyist, profound thinker, and forceful teacher. He died of pneumonia on June 8, 1910, at the age of 68. As his life-long friend, George Henry Fox, aptly put it, he was "a blazing meteor in our dermatologic firmament."

In 1879, George Henry Fox marked an epoch in the illustration of skin diseases when he published his *Photographic Illustrations of Skin Diseases*, the first attempt to illustrate dermatoses by means of photography.[6] He also published *Skin Diseases in Children* (1897),[7] and his *Reminiscences* (1926).[8] He was the first to describe a chronic, itching, papular eruption of the axillae and pubes (Fox-Fordyce disease).[9] The clinical observations were done entirely by him. Fordyce did only the histology. Fox was probably the first to report a contact dermatitis, when he described match-box dermatitis as early as 1888. After receiving his medical degree from the University of Pennsylvania in 1869, he served an internship at "old Blockley," where, by a strange coincidence, he succeeded Louis A. Duhring, of Philadelphia, another great American dermatologist.[10] On the completion of his internship at the Philadelphia (Blockley) Hospital, Fox left for Europe, where for three years he studied dermatology, in Berlin under Virchow, in Vienna under Hebra, Neumann, Schroetter, and Stoerck, in Paris with Bazin, Hardy, and Vidal, and in London under Tilbury Fox and Jonathan Hutchinson.

Fox became a great teacher and served at different times as professor of dermatology, from 1875 to 1907, at The Women's Medical College of the New York Infirmary, Starling Medical College, Columbus, Ohio, the New York Post-Graduate Medical School and Hospital, and the College of Physicians and Surgeons in New York. He resigned from the last institution before the age limit in order to enable his chief assistant, Dr. George T. Jackson, to become full professor before also attaining the age limit. Fox served as president of the Medical Society of the County of New York in 1891, and of the Medical Society of the State of New York in 1894. He was president four times of the New York Dermatological Society and a founder (1876), president (1892), and honorary president at its golden anniversary meeting in 1926, of the American Dermatological Association. Most of Fox's clinical work was done at the New York Skin and Cancer Hospital,[11] where he was attending dermatologist from 1883 to 1913. One of the great satisfactions of my life was my close association with Dr. Fox over many years. On the many occasions that we were together, I never heard him speak of his own honors, but he was always ready to speak of those around him who had attained a high degree of proficiency in the specialty he had so greatly loved. Another of Dr. Fox's most lovable traits was the extraordinary friendship and interest which he manifested for the young tyros of his specialty. His willingness to help them in every way possible was expressed without the slightest trace of condescension. As Pusey rightly stated, "He was perhaps the friend of more American dermatologists than any other one of his generation." Fox died on May 3, 1937, at the age of 91.

On January 1, 1883, the doors of a small house at 243 East 34th Street were opened to patients

with skin diseases, and that act marked the beginning of not only the first hospital in the United States devoted to dermatology but also the largest in America, a position it has maintained ever since [11] On the staff of the New York Skin and Cancer Hospital, many of the representative dermatologists of New York have served at different times Even in 1883, its first year, one may find on its consulting staff such famous New York names as William H Draper, Fordyce Barker, T Gaillard Thomas, Edward G Janeway, Alfred L Loomis, and Abraham Jacobi An outstanding member of the group which founded the hospital and the one most responsible for its existence was Dr L Duncan Bulkley, it was he who conceived the original idea He was the son of Henry Daggett Bulkley, who was the first to teach and practice dermatology, not only in New York, but in America as well L Duncan Bulkley graduated in medicine from the College of Physicians and Surgeons in 1869, studied dermatology at the Hôpital Saint-Louis, and on his return to New York, became most active in dermatology His monograph, *Syphilis in the Innocent*,[12] won the Alvarenga prize in 1891 from the College of Physicians of Philadelphia He wrote several hundred articles and six or eight textbooks, mostly devoted to dermatotherapy, in which he had a deep interest He was one of the founders of the American Dermatological Association, and secretary of its first annual meeting, which was held in Niagara Falls, New York, on September 4, 1877 L Duncan Bulkley was also one of the founders of the Section on Dermatology and Syphilology of the American Medical Association and chairman at its first meeting on May 8, 1888 Bulkley died in 1928 at the age of 83

Samuel Sherwell was the first teacher of dermatology at the Long Island Medical College (1877) and first to practice this specialty in Brooklyn, where he remained active for some fifty five years He received his medical degree from University and Bellevue Medical College in 1868 and did postgraduate work in Europe until the outbreak of the Franco-Prussian war in 1879, when he served in the Anglo-American Ambulance Corps with Sir William McCormack and Marion Sims For these services he received from the Bavarian government the military order "Pour le Mérite" He was elected president of the New York Dermatological Society in 1881 and again in 1909 He was also president of the American Dermatological Association in 1894 He wrote a number of dermatologic articles, the most outstanding of which was on his use of acid nitrate of mercury after thorough curettage in the treatment of epithelioma of the skin, a method which proved highly efficacious, giving at the same time excellent cosmetic results Sherwell died in 1928, at the age of 87, after an eventful and interesting life His *Recollections of an Old Boy*[13] makes fascinating reading

Edward L Keyes graduated from New York University Medical College in 1866 On the advice of his preceptor, William H Van Buren, he went abroad to specialize in dermatology In 1871 he was appointed lecturer in dermatology at Bellevue Hospital Medical College, and in 1881, professor of cutaneous and genitourinary diseases at the same school Keyes was deeply interested in genitourinary surgery, but he made a number of valuable contributions to dermatology, among which may be mentioned the invention of the cutaneous punch for biopsies One of his greatest contributions was a paper on the effect of small doses of mercury on syphilitic blood which first appeared in January, 1876 [14] This paper was incorporated in an essay on the same subject which was read by Keyes before the Section on Dermatology and Syphilis at the International Medical Congress at Philadelphia in September, 1876 Keyes was a charter member of both the New York Dermatological Society and the American Dermatological Association Van Buren and Keyes collaborated on a textbook on genitourinary diseases which remained a classic for many years

Andrew Rose Robinson graduated in medicine at Bellevue Hospital Medical College in 1868 and the University of Toronto in 1869 He did postgraduate work in dermatology in London, Paris, and Vienna, where he became especially interested in histopathology, this interest led to his appointment as professor of histology and pathologic anatomy at the New York University Medical College and Women's Medical College of the New York Infirmary for Women and Children, but the institution nearest his heart was the New York Polyclinic Medical School and Hospital, of which he was one of the founders and professor of dermatology for many years He wrote a *Manual of Dermatology*, and was the first to describe hydrocystoma [15] Robinson served as president of the Section of Dermatology and Syphilology at the ninth International Medical Congress in 1887, and of the American Dermatological Association in 1896 He was the first chairman of the Section of Dermatology and Syphilology of the New York Academy of Medicine

Prince A Morrow was born on December 19, 1846, at Mount Vernon, Christian County, Kentucky He received his degree in medicine from New York University in 1873 and after two years of dermatologic work in Europe, he located in New York, where he rapidly rose to

eminence. He became professor of dermatology and genitourinary disease at New York University and Bellevue Hospital Medical College in 1883. He was also an attending physician to the department of cutaneous and venereal disease of the New York Hospital. He was a corresponding or honorary member of most of the foreign dermatologic societies, and he served as secretary of the International Congress of Dermatology and Syphilology in Paris in 1890 and in Vienna in 1893. He edited the *Journal of Cutaneous and Genitourinary Diseases* with Piffard from 1883 to 1888, and with Fordyce from 1888 to 1891. He was the author of *Drug Eruptions* (1887), *An Atlas of Skin and Venereal Diseases* (1888-89), *A System of Genitourinary Diseases, Syphilography and Dermatology*, three volumes (1892-94), *Leprosy* (1880), *Social Diseases and Marriage* (1904). Morrow, through Fournier's *Syphilis and Marriage*, which he translated into English in 1880, received the inspiration to take up the prophylaxis of syphilis, so that later on in life he practically made it his life's work. He founded the Society of Sanitary and Moral Prophylaxis in 1905 and remained its president until his death in 1913. He was the founder and editor of *Social Diseases*, a journal devoted to venereal prophylaxis.

John A. Fordyce graduated in medicine from Northwestern University Medical School in Chicago in 1881, served as intern in the Cook County Hospital until 1883, practiced general medicine at Hot Springs, Arkansas, for three years, studied dermatology abroad for two years, and on his return to the United States in 1888, settled in New York. Fordyce served as professor of dermatology and syphilology at New York University School of Medicine from 1893 to 1912, when he resigned in order to accept a similar position at the College of Physicians and Surgeons. He retained this position until his death. He also served the City Hospital most faithfully as visiting dermatologist from 1893 until his death in 1925. In 1889 he became coeditor with Prince A. Morrow of the *Journal of Cutaneous and Genitourinary Diseases*. From 1892 on he was its sole editor until his resignation in 1897. Fordyce was a prolific writer, and—what is more important—of his more than a hundred monographs, many marked an advance in the specialty to which he devoted a superabundant energy. He became at different times the presiding officer of the more important dermatologic societies in America. Despite a large practice, extensive teaching, much hospital and executive work, he always found time to encourage and help the younger physicians, no matter how obscure. Fordyce was a great histopathologist, a bent in this direction having developed under the inspiration of Kaposi. He was also a pioneer in the modern treatment of neurosyphilis. In 1896 he first described pseudocolloid of the lips (Fordyce's disease) under the following title, "A Peculiar Affection of the Mucous Membrane of the Lips and Oral Cavity."[16] "Infectious Eczematoid Dermatitis. Influences of Anaphylaxis Reactions"[17] appeared in 1911 and probably was the earliest exposition of skin eruptions caused by allergy. Like most great men, Fordyce was modest and extremely diffident. American dermatology suffered an irreparable loss in his death, on June 4, 1925, two weeks after an appendectomy.

Sigmund Pollitzer graduated from the College of Physicians and Surgeons in 1884. After graduation he undertook research work in physiology in Heidelberg, Germany, and in bacteriology in Fresenius' laboratory in Weisbaden, Germany; later he took up special work in Virchow's laboratory and at this time did much original work in physiologic chemistry. It was not until 1889 that he entered on his life's work, first at Unna's clinic and then as an assistant to Sir Malcolm Morris, in which position he edited for some time the *British Journal of Dermatology* under Morris' direction. From London he went to Paris, and there began a lifelong friendship with Darier, whose textbook he translated into English in 1920. Pollitzer was the first to describe the following dermatoses: acanthosis nigricans,[18] hydradenitis destruens suppurativa,[19] and parakeratosis variegata with Unna and Santi.[20] Pollitzer, in 1910, reported the first case of rhinoscleroma cured with x-rays.[21] He did much pioneer work dealing with the modern concept of syphilis. Pollitzer served as vice-president (1913) and president (1914) of the American Dermatological Association, and was one of its most active members for forty-one years. He was professor of dermatology at the New York Post-Graduate Medical School and Hospital from 1885 to 1915. Pollitzer was a strict parliamentarian and was especially critical of long-winded discussions lacking concrete facts. In such instances he could, in a few words of polished English and in well-chosen scientific terms, completely smother the unhappy speaker with unassailable facts, from which there was nothing else to do than to retire in confusion. Pollitzer, in acting thus, did much good service, for he deflated the ego of the usual group of know-it-alls who frequent every dermatologic meeting. In his home and with his friends he exuded kindness, generosity, and simplicity. Pollitzer always evinced much friendship for me; why, I do not know, but it did bring me great happiness. He belongs to that small group of physicians who have placed dermatology on a

sound, dignified, and scientific basis. His death in 1937 was a severe blow to those of us who knew him well enough to appreciate his many qualities of mind and heart.

Robert M. Taylor received his medical degree from the College of Physicians and Surgeons in 1868. He first described idiopathic progressive atrophy in 1876.[22] In 1875 he wrote *Syphilitic Lesions of the Osseous System in Infants and Young Children*,[23] a pioneer and most important contribution to the study of bone syphilis. He published a large folio on venereal and skin diseases in 1889. He was the first to teach dermatology at the University of Vermont and succeeded George Henry Fox as professor of dermatology at the New York Post-Graduate Medical School and Hospital. Taylor was a founder of the American Dermatological Association, and its president in 1882. He was president four times of the New York Dermatological Society. He died in 1908 at the age of 66.

Comment

In the difficult early years of dermatology in America, there is not the slightest doubt that the pioneer dermatologists of New York City played star roles in the development of their specialty in this country. Its present enviable position is substantially due to their tremendous ability, capacity for work, and complete unselfishness; all of these prerequisites were, of course, shared by other American dermatologists; the names of Worcester, White, Hyde, Duhring, Hardaway, Ravogli, Stelwagon, Gilchrist, and Pusey will blaze forever on the marquee of a dermatologic Hall of Fame.

May I conclude with the expression of the hope that this less than complete recital of the deeds of our dermatologic masters of yesterday may refresh your memories, stimulate your interest in medical history, and enhance your appreciation of the labors of these men in a field of medicine which offers an extraordinary fascination to its devotees

1364 North Avenue,
Elizabeth, New Jersey

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HOSPITAL FOR JOINT DISEASES TO MAKE HOUSE STAFF APPOINTMENTS OF INTERNS

The Hospital for Joint Diseases, in New York City, has announced that applications of interns for house staff appointments to fill twelve places on the general rotating service are now being accepted

The appointments will be for nine months; one-half of [illegible] be permitted to continue as junior residents, the number of junior [illegible] for another nine months as senior residents This is in accordance with the allocation plan of the Procurement and Assignment Service. Eight interns are to begin on the [illegible] of the year: July 1 August [illegible] sible within the term of nine months: surgery, [illegible] ophthalmology, [illegible] neurology, [illegible] s, neuropsychiatry, dermatology, pathology, chemistry, [illegible] pediatrics, and [illegible]

[illegible] service, interns and junior [illegible] pointment as residents [illegible] the American Medical Association for general internships and residencies, and by the American College of Surgeons as meeting its standards, provides maintenance, uniforms, and a stipend of $25 a month to interns. About 6,000 patients are treated annually, and one-half of that number are in the surgical, medical, pediatric, and all of the above-mentioned specialties. About 70 per cent are on ward service; all services are active.

The outpatient department treats about 700 pa- [illegible] should be addressed to Joint Diseases, 5, New York.

PREGNANCY AND MULTIPLE SCLEROSIS—CASE REPORT

IGNATIUS M. BIRNER, M.D., Brooklyn, New York

CASES of pregnancy occurring in women with multiple sclerosis are very rare. Among 6,414 cases at the Baudeloque Clinic, there were only 2 cases of multiple sclerosis. On the other hand, multiple sclerosis is one of the most common nervous affections and it occurs usually in young individuals, so that the small number of pregnancies is very remarkable. There are about 45 cases reported in the whole literature, one in the United States by F. J. Atwell and J. M. Mackenzie in the *Clinical Miscellany*, Basset Hospital, 1934.

I thought it worth while to report the following case because of the rarity of this kind of case and because of the peculiar effect pregnancy had on certain symptoms of the pre-existing multiple sclerosis.

Case Report

Case 1.—S. A., 27 years old, a white married woman, was admitted to the hospital on December 30, 1941. On admission her chief complaints were pain in the left upper quadrant, difficulty in walking, and weakness. For the past year and a half she had noticed a gradual weakness and stiffness in her left leg. She began gradually to lose control of her leg, finding difficulty in bending it and in making coordinated movements with it. At the time of admission the patient experienced a sensation on her left side up to the lower rib which was described as a feeling of numbness. Lately she had also complained of some numbness in her left arm.

From her past history the only fact worth while mentioning is that at the age of 6 she had a convulsion, after which she was "ill for six months with both legs in braces." After this period the braces were removed and she was left with no residual paralysis or weakness (patient's explanations about this episode are entirely unsatisfactory). Family history concerning nervous disorders was negative. Neurologic examination on admission revealed the following positive findings: tongue deviation to the left, absent abdominal reflexes, spasticity and weakness of the left extremities, ankle clonus, and Babinski, positive Romberg only with eyes closed, nystagmal jerks on both right and left gaze, zone of hyperesthesia on the left side of the level of the fifth and sixth thoracic vertebrae, paraesthesias over the lower half of the body on the left, and no anesthesias.

Examination of eyegrounds revealed bilateral pallor of disks. Vibration test showed impaired vibratory sense bilaterally and more so on the left side.

There seemed to be some atrophy of the left hypothenar and thenar eminences with definite weakness of the left hand. The left thigh showed considerable atrophy. The entire left lower limb was spastic. Aside from the neurologic findings the physical examination was negative.

Laboratory Data: The urine showed no pathology. Blood examination showed: red blood cells 4,800,000; white blood cells, Leukocytes, 12,000, total polymorphonuclears 68 per cent; hemoglobin 14.5 Gm. The spinal fluid was crystal clear. The pressure was normal and there was no increase in cells. The Wassermann test of the blood and spinal fluid gave a negative result. X-ray examination of the thoracic spinal column showed no evidence of any gross osseous abnormality or dislocation. Despite this last finding, a laminectomy was performed because of suspicion of an osteoma in the region of the fifth and six thoracic vertebrae. At the operating table the right sixth dorsal root was found displaced downward and posteriorly by a bony protuberance appearing as a thickened lamina on the right side and then gradually going over into a growth arising from the body of the sixth dorsal vertebra. This growth was at least half an inch thick at the lateral border of the vertebra. It displaced the cord posteriorly and to the left. Pressure was exerted upon the right and lateral quadrant of the cord.

Postoperative course was uneventful but there was no change in the preoperative symptomatology.

Four months later (the patient was operated upon on January 8, 1942) the patient consulted two specialists and both agreed with the diagnosis of multiple sclerosis.

In May, 1942, the patient came for the first time to my office; she was in her fourth month of pregnancy. Last menstrual period was November 1, 1942. Expected date of confinement was August 8, 1943. My neurologic findings at that time were the following: marked nystagmus in lateral position, positive Romberg without eyes closed, intention tremor, hyperreflexia, especially in the lower extremities, abdominal reflexes absent, positive Babinski, speech scanning and slight dysarthria, increase in muscle tone, especially in lower extremities, paresis in left upper extremity and pronounced weakness in left lower extremity, atrophy of thenar and hypothenar eminences of left hand especially, marked muscular atrophy of left leg, no sensory disturbances, and lability of emotions, tending either to extreme euphoria or extreme depression. The last symptom persisted all through her pregnancy and seemed to increase in intensity with the months of gestation. Toward the eighth month of pregnancy her condition grew worse. Her left leg became very weak and she could walk only with the aid of another person.

Labor started at 4:30 A.M. on August 3, 1943, and she was admitted to the maternity ward of St. Catherine's Hospital at 5 A.M., having fairly strong pains every five minutes. The cervix was fully dilated at 9 A.M., August 4, 1943. The membranes ruptured spontaneously at 7:45 A.M. on August 4, 1943. She delivered a living male child at 9:35 A.M., August 4, 1943. Low forceps were applied and episiotomy was performed because of perineal arrest. The placenta was delivered at 9:43 A.M. The first stage lasted twenty-nine hours, the second lasted thirty-five minutes, and the third, eight minutes. The baby was perfectly normal and weighed 7 pounds, 9 1/2 ounces. The postpartum course was uneventful and the patient left the hospital on the tenth day.

Three months later I examined the patient in my office and could notice the following neurologic changes for the better: nystagmus only slight in lateral position, intention tremor less pronounced, positive Romberg only with eyes closed, speech still scanning but no dysarthria, paresis in left upper extremity less pronounced and increase in strength in left leg, and more stable emotions. The patient was able to attend to her child.

Comment

The publication of this case seemed worth while for two principal reasons; first, because the occurrence of pregnancy at an advanced stage of multiple sclerosis is very rare, and second, because it is one of the very few cases reported in which there was not only an arrest but, moreover, an improvement in some of the neurologic symptoms after delivery.

It would be perhaps too far fetched to express any definite statement about the influence which pregnancy may exert upon the progress of multiple sclerosis, because, as we well know, periods of arrest are very common during the course of this disease. But as long as there is a relationship between nervous disorders and the generative processes, I dare say that pregnancy may even have a beneficial effect on some of the symptoms of multiple sclerosis. Further observation of this case and other cases may give us some more light about this problem in the future.

170 Arlington Avenue
Brooklyn, New York

NEW CANCER ASSOCIATION

A new cancer organization—the Public Health Cancer Association of America—was formed at the Second Wartime Public Health Conference of the American Public Health Association in New York City. Its purposes are to provide for interchange of ideas among persons engaged in cancer control programs, to hold an annual meeting, and to encourage cooperative research in the methods and results of cancer-control measures. It is the representative organization of workers in cancer control.

The new organization reflects the growing activity in cancer control on the part of official health agencies. In addition to members of the American Cancer Society and of the National Cancer Institute, the founders incl[illegible] e state health departmen[illegible] (Illinois, Iowa, Michigan, [illegible], South Carolina, West Virginia); two state cancer commissions (Missouri and Vermont); one city health departm[illegible] health department (N[illegible]; and one district state hea[illegible]ork).

Officers of the Association are: president, Herbert L. Lombard, M.D., director, Division of Adult Hygi[illegible] D[illegible] te[illegible]), d[illegible] n[illegible] treasur[illegible] Divisio[illegible] partme[illegible]

Alth[illegible] is not formally affiliated with the American Public Health Association, its officers were active in arranging for cancer symposia which were held in conjunction with the last two annual meetings of the latter organization.—*Health News, Dec. 25, 1944*

RHEUMATIC FEVER SOUND FILM STRIP

"Jimmy Beats Rheumatic Fever," a fifteen-minute sound film strip, has just been released by the Metropolitan Life Insurance Company. The strip was made under the supervision of George M. Wheatley, M.D., assistant medical director of the company. The script was reviewed by T. Duckett Jones, M.D., of the House of the Good Samaritan, [illegible] scenes on diver[illegible] Alice Burkhardt, [illegible] Nurse Service of [illegible] the annual meeting of the American Academy of Pediatrics, where it was enthusiastically received. Officials of the New York City Department of Health and the Board of Education are recommending it for training courses for nurses and teachers as well as for mothers' clubs.

The strip was produced primarily for parents, teachers, and others who work with children. It is an 8-year-old boy's story about his successful battle with rheumatic fever. Because his mother was [illegible] of [illegible] n. film strip with a 16-inch record.

Other material which will help in presenting a program on rheumatic fever is available from the company. Requests for this and the strip should be addressed to Welfare Division, Metropolitan Life Insurance Company, 1 Madison Avenue, New York 10, New York.

BEAUMONT MEMORIAL FOUNDATION ORGANIZED

Organization of the Dr. William Beaumont Memo[illegible] ochure now The home of Wisconsin, where Dr. Beaumont carried on many of his history-making experiments. It is housed in a restoration of the old Fort Crawford Military Hospital.

The Foundation was organized as a memorial to the pioneer physiologist and as an American medical shrine. It is sponsored by a group of eminent medical men and community-minded Wisconsin citizens. The brochure gives an interesting history of Beaumont, the New England boy whose backwoods research and observations laid the ground work of modern physiologic science. It carries many excerpts from Dr. Beaumont's diaries as well as his famous "51 Inferences."

Medical men may secure a copy of the booklet by writing to the Dr. William Beaumont Memorial Foundation, Prairie Du Chien, Wisconsin.

TRAUMATIC PERFORATION OF THE APPENDIX—CASE REPORT

DAVID LYALL, M.D., and JOHN J. CREEDON, M.D., New York City

(From the Second (Cornell) Surgical Division, Bellevue Hospital)

THIS report presents a case of unusual character, with the role of injury apparently proved. The distinction between "traumatic" appendicitis followed by gangrene with perforation and primary traumatic perforation must be made. As Fowler[1] says, "Appendicitis is a disease and not an accident. It cannot be produced by trauma alone." Discussions of aggravation of pre-existing disease or of the cause of appendicitis following injury remain in the realms of speculation.

As late as 1935[2] the following statement was made: "The exact mechanism of traumatic appendicitis has never been satisfactorily established. It is within the bounds of possibility, though so far as we know no case is on record, that direct violence might bruise the organ, or even cause it to rupture. The demand of some writers for laboratory proof of the trauma is not likely ever to be answered, and their claim stands unchallenged that no case has ever been scientifically proved."

Avulsion from the cecum of the apparently normal appendix has been reported.[3] Other cases[4,5,6] are presented in which the important distinction between traumatic rupture and perforation following appendicitis cannot be made. A case is recorded[5] in a child of 10 in whom the appendix was angulated by adhesions in its middle third and in whom rupture of all coats occurred following a fall from a swing.

Kessler[7] states that "it is highly improbable that trauma can initiate appendicitis." In establishing the validity of a liability or compensation claim he states that, among other things, there must be (1) no previous history suggesting appendicitis; (2) a proved adequately severe injury or overexertion; (3) an injury whose nature and location is suitable to affect the appendix; (4) symptoms directly following trauma.

The case described fulfills these causative conditions and the operative and pathologic findings confirm the role of trauma.

Case 1.—A 57-year-old man (M. L., 48424-43) was admitted to Bellevue Hospital on October 18, 1943, complaining of low abdominal pain. One hour prior to admission he had fallen a distance of six feet from a ladder, landing on his feet with his trunk acutely flexed. He did not lose his balance at any time. Immediately following the accident he experienced severe pain in both lower quadrants of his abdomen, slightly more severe on the right side. Following the fall he was able to walk a distance of 30 feet in a hunched position. He noted at the time that his inguinal hernias, which he had had for many years, were large and painful, particularly that on the right side; however, he was able to reduce both. He was brought to the hospital by ambulance.

On examination his temperature was 100 F., pulse 70, respirations 20, and blood pressure 120/70. He was restless, excited, and in moderate distress, complaining of pain in both lower quadrants. The pertinent physical findings were confined to the slightly distended abdomen. There was direct and rebound tenderness with spasm in both lower quadrants, more marked on the right. There was slight rigidity in the upper abdomen. No masses were palpable. There were large bilateral reducible indirect inguinal hernias. Genitalia were normal. Rectal examination revealed slight tenderness high on the right side. While being examined the patient vomited several times and on one occasion a large, slightly tender, reducible mass was forced into the right hernial sac.

Laboratory Findings: The patient was catheterized and 300 cc. of amber, bloodless urine was obtained. The red cell count was 4,100,000; leukocytes, 8,000—60 per cent polymorphonuclears, 25 per cent transitionals, 12 per cent lymphocytes, 2 per cent monocytes, and 1 per cent eosinophils. A flat plate of the abdomen revealed no free subdiaphragmatic air. The chest plate showed a normal lung field with good diaphragmatic excursions.

Course and Treatment: Parenteral fluids were begun on admission, and oral feedings were withheld. He was watched closely. Twenty-four hours later another flat plate revealed moderate distention of the small bowel with several fluid levels on the right side. The patient continued to complain of moderate low abdominal pain which was somewhat more marked on the right side, but tenderness decreased slightly and became more evident on the left. The temperature hovered around 101 F., pulse 84, and blood pressure 130/70. He was maintained on intravenous fluids for another twenty-four hours. At this time a third flat plate of the abdomen showed moderate distension of the small bowel with numerous fluid levels throughout. The findings remained unchanged except that rectal tenderness appeared to be more acute. The white count rose to 11,500, and the temperature to approximately 102 F.

Operation was performed fifty-four hours after admission through a lower right rectus incision. Upon opening the peritoneum a patchy injection of the large and small bowel was seen. There was cloudy fluid present with an odor suggestive of B. coli. Large indirect inguinal hernia defects were present on both sides. A mass of scarred, fibrosed, edematous omentum 14 × 6 × 6 cm. was found in the abdomen loosely attached to the right hernial sac, which it had evidently occupied prior to the accident. The cecum and its attachments were well down over the brim of the pelvis and appeared to make up the lateral wall of the right hernial sac, thus giving the picture of a "sliding hernia." A greatly thickened appendix was low in the pelvis extending across to the left side where its tip was adherent to the mesosigmoid by a strong fibrous band. The tip lay in an abscess cavity measuring 4 × 4 cm. There was a tiny perforation at the tip of the appendix adjacent to the attachment of the fibrous band. This was seen with difficulty, for it was about one mm. in diameter. The sigmoid forming the lateral wall of the abscess was searched for perforation but none was found. The tip of the appendix was freed and delivered into the wound. The appendix was then removed in the usual manner. The organ was thickened, injected on its sur-

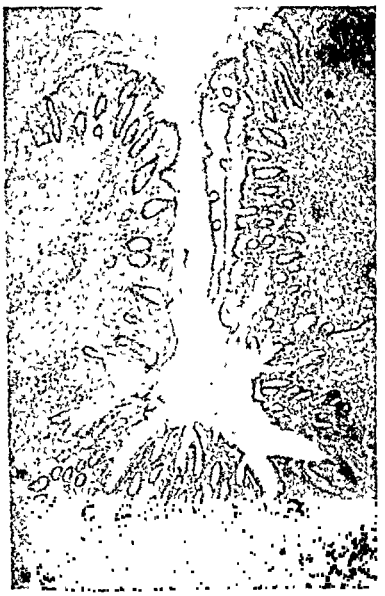


FIG. 1. The mucosa is well preserved and extends outward through opening in muscular and serous coats. The serosa is covered with fibrinopurulent exudate.

face, but not diffusely inflamed. No fecaliths were present. A peritoneal culture was taken and later revealed B. coli. One cigarette drain was placed in the [illegible] a thir[illegible] brough[illegible]. Eight Gm. of sulfanilamide was scattered through the involved areas and the wound was closed in layers with catgut.

Postoperative Course: The patient was placed on Wangensteen drainage and given 500 cc. of citrated blood. For the following eleven days his [illegible]

On the second day he was started on intravenous sodium sulfadiazine. This was maintained for four days, in which period he received a total of 20 Gm. Because of marked abdominal distension he was given nothing by mouth for five days. Clear fluids Regular

The wound drained a serosanguineous material in lessening amounts until the fifteenth day. The drains were removed on the fifteenth day. He was allowed out of bed on the twenty-fourth day and

the appendiceal wall. There is an outpouching of mucosa so that most of this channel is lined by it. An abundant fibrinopurulent exudate is seen on the serosal surface of the appendix. A small amount of similar exudate was seen at the outer margin of the point of perforation. A mild cellular infiltration was found in the tissues at the edges of the rent. There were, however, no gangrenous changes.

coat.

Conclusion

A case of traumatic perforation of the appendix is presented. This resulted from fixation of the appendiceal tip by an adhesion while the cecum was forced in a downward direction. Microscopically the appendix showed no evidence of the degree or type of infection which causes gangrene and perforation.

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HEALTH AGENCIES AND MEDICAL CARE

Our health agencies have already hoisted their flags over large fields, some of which (possibly most of which) they occupy so thinly as to be ineffective.

In order to make good our plans for the prevention of disease and the postponement of death, we must keep the preventive aspect clearly in mind. Until we have gotten much farther along toward the complete control of tuberculosis, syphilis, gonorrhea, and other preventable diseases, we cannot, as health authorities, seek or take on the tremendous task of securing good medical care for everybody. That may come unsought, in some degree, in time, probably piecemeal, but we are certainly not ready for it now. To spread out over still wider areas would mean being even less effective than we are now in many of our preventive efforts.—*Homer Folks, Am. J. Pub. Health, Feb. 1941.*

BASILAR IMPRESSION AND ASSOCIATED DEFORMITIES—CASE REPORT

SAMUEL C. LITTLE, (MC), AUS, and LUCIEN M. PASCUCCI, Maj., (MC), AUS

(From the departments of neurology and radiology of the O'Reilly General Hospital, Springfield, Missouri)

ANOMALIES and deformities of the base of the skull and upper cervical spine, though relatively rare, occur with sufficient frequency to be of importance in the differential diagnosis of other organic lesions in this region. These disturbances are not well understood nor widely recognized. Though the majority of investigators feel that they all represent variants of one basic abnormal process, considerable confusion as to their cause still exists. The discussion and case report which follow represent an attempt at clarification of some of the problems concerning the above disturbances.

Arnold-Chiari Deformity

Arnold[1] in 1894 and Chiari[2] in 1895 independently described a group of peculiar deformities of the hindbrain which they classified in the following manner:

1. Elongation of the tonsils and the medial parts of the inferior lobes of the cerebellum as a tongue-like process investing the medulla in the upper portion of the vertebral canal.
2. Displacement of parts of the cerebellum into the upper vertebral canal, and elongation of the fourth ventricle so that it opens into the spinal subarachnoid space below the level of the foramen magnum.
3. Downward herniation of the whole cerebellum into a cervical spina bifida and meningocele.

In the more advanced deformities, the lower cranial nerves may be carried down into the cervical vertebral canal and from there extend cephalad to reach their foramina of exit. The basal ganglia, third ventricle, and thalamus may also be displaced downward. Though these extreme defects are usually incompatible with life, patients with milder degrees of abnormalities frequently reach an advanced age. Ordinary roentgenograms of the head and neck of patients with uncomplicated Arnold-Chiari deformity do not reveal any abnormality, but myelographic studies may show an obstruction of the upper cervical canal and foramen magnum by the herniated cerebellum and medulla. Ogryzlo[3] feels that the operative treatment of this condition resolves itself into a decompression over the deformity and re-establishment of the cerebrospinal fluid circulation. He warns against the dangers of immoderate mobilization of the cerebellar tongue.

Klippel-Feil Syndrome

The Klippel-Feil[4] deformity usually consists of a defect of the atlas, a cervical spina bifida, and fusion of some of the cervical vertebrae. A short neck with limited mobility is the striking clinical feature in most cases. Roentgenograms may reveal fusion of the vertebrae and irregular formation of their bodies and lateral masses; frequently there is a union of all or a part of the atlas with the occipital bone.

Spina Bifida and Spinal Dysraphia

Lichtenstein[5] states, "Spina bifida is primarily an expression of inadequate or improper fusion of the embryonal tissues in the dorsomedian region of the developing embryo, and the resultant pathologic states are manifested therefore in the cutaneous, mesodermal, and/or neural derivatives of these tissues." In the embryo the vertebral column grows faster than the spinal cord, and as the brain is relatively fixed, an upward migration of the cord occurs. In some instances of spina bifida the *meninges, nerve roots, or even the cord are actually* fixed to the cutis; the normal upward migration of the cord is thus prevented, and distant neuroanatomic alterations occur. The list of possible alterations given below is a modification of Lichtenstein's classification:

1. The spinal cord remains in the sacral or lower lumbar region and is liable to injury by lumbar puncture.
2. Degeneration occurs in the spinal cord as a result of stretching.
3. Downward migration of the hindbrain occurs (Arnold-Chiari deformity).
4. The lowermost cranial nerves are elongated and compressed at the foramen magnum by the impacted hindbrain.
5. Stenosis of the aqueduct of Sylvius develops.
6. Internal hydrocephalus results from a stenosis of the aqueduct, from impaction of the hindbrain, or from both.
7. Hydromyelia is seen in the upper cervical cord caused by hydrocephalus.
8. True syringomyelic-like cavities (not due to hydrocephalus) appear in the cervical cord.
9. There is pressure on the anterior spinal arteries and the vertebral system of veins at the foramen magnum.

It must be emphasized that the fixation of the spinal cord is not necessarily associated with a roentgenologically demonstrable bony defect.

Basilar Impression, or Platybasia

Basilar impression, or platybasia, is a deformity of the base of the skull in which the foramen magnum is distorted and seems to have been pushed up into the posterior fossa.[7] The atlas may be assimilated into the occipital bone, the lower part of the odontoid process encroaching on the cervical portion of the vertebral canal and the upper part projecting into the foramen magnum. The cause of basilar impression is not much clearer at present than it was when the condition was first described by Rokitansky in 1884. List[6] suggests that perhaps



FIG. 1. Lateral projection of skull.

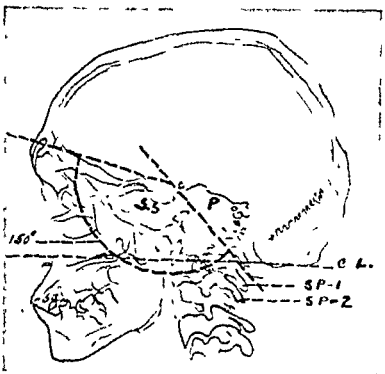


FIG 2 Tracing of Fig. 1 showing basal angle of 150° and elevated petrous ridges.



FIG 3. Lateral [illegible] of [illegible] Chamberlain's line. [illegible] the line coin second cervical segment.



FIG. 4. Occipital projection.

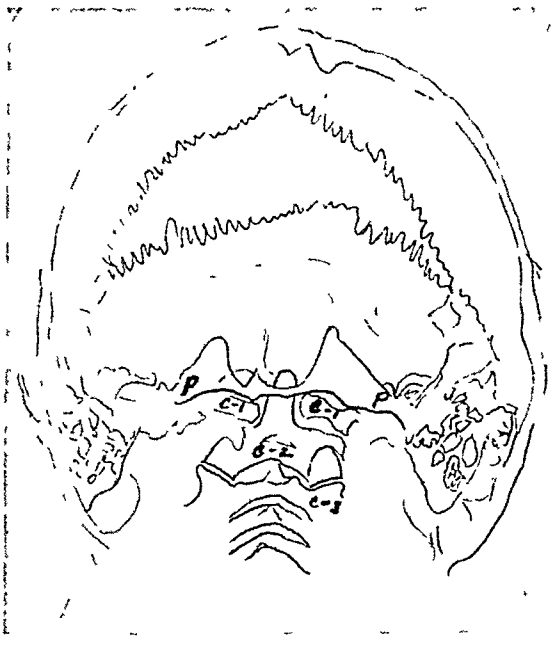


FIG. 5. Tracing of Fig. 4 showing elevated basiocciput and projection of odontoid into foramen magnum.

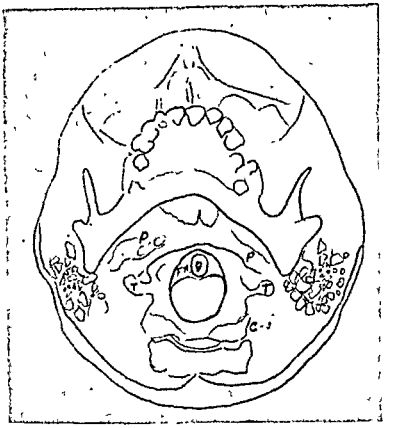


FIG. 6. Basal projection.

the downward pressure of the heavy skull against the unyielding cervical spine invaginates the region of the foramen magnum through an abnormally soft or underdeveloped basiocciput. All investigators are agreed that basilar impression is often associated with the Arnold-Chiari deformity, the Klippel-Feil syndrome, spina bifida, syringomyelia, and other manifestations of spinal dysraphia. It seems the deformity could be produced either by an upward displacement of the bone about the foramen magnum or a downward displacement of the rest of the skull. Lichtenstein's theory of downward displacement of the hindbrain by abnormal fixation of the cord or meninges would explain the Arnold-Chiari malformation which is so often associated with basilar impression, but it is difficult to understand how downward traction by the spinal cord could produce either upward displacement of the bone about the foramen magnum or downward displacement of the skull. It therefore appears that platybasia itself is not a distant complication of spinal dysraphia but is probably a separate manifestation of the same morbid process which produces the dysraphia.

If the condition is at all advanced individuals with platybasia present a characteristic appearance. The head is wide and set close upon the shoulders; the posterior hairline is very low, and the neck movements are restricted. If the head is held tilted to one side, an asymmetric fusion of some of the cervical vertebrae may be suspected.

The neurologic symptoms depend upon associated neurovertebral anomalies present as well as upon the degree of basilar impression. Even when the Arnold-Chiari deformity is not present cerebellar symptoms (such as ataxia, dysdiadokokinesia, and nystagmus) may result from compression of the medulla, pons, and cerebellar peduncles against the rigid tentorium by the deformed basiocciput. Encroachment upon the ventral surface of the pons or medulla by the dorsally displaced odontoid process gives rise to pyramidal tract signs in any or all extremities. Compression and traction on the ninth, tenth, eleventh, and twelfth cranial nerves produce palsies of these nerves unilaterally or bilaterally. Dissociated sensory changes of a syringomyelic type may be caused by pressure on the anterolateral portion of the cord or medulla, by a hydromyelia secondary to hydrocephalus, by a true syringomyelic cavity, or by occlusion of the anterior spinal artery. Hydrocephalus with signs of increased intracranial pressure may result from constriction of the foramen magnum, from the jamming of the cerebellum into the foramen, or from stenosis of the aqueduct of Sylvius. Pain in the occiput and neck may indicate merely irritation of the cervical nerves, but more general headaches and dizziness are usually signs of increased intracranial pressure. When the atlas is dislocated on the axis, pressure on the dorsal part of the cord may give rise to loss of posterior column sensations; thus, posterolateral sclerosis may be simulated. Irritation of the trigeminal roots may cause pain in the face and decrease in the corneal reflexes. The full-blown syndrome is easily mistaken for a posterior fossa tumor



until roentgenograms reveal the characteristic deformity.

Roentgenologically, the platybasic skull may show a basal angle which is greater than 143° (average normal—134°). The plane of the clivus approaches the horizontal. As pointed out by Chamberlain,[8] the tip of the odontoid process frequently projects above a line drawn from the posterior margin of the hard palate to the posterior rim of the foramen magnum. The vault is often widened and the petrous ridges are elevated. The foramen magnum is altered in size and shape; its rim may be greatly thickened. Fusion of the atlas with the occiput, partial anterior dislocation of the atlas on the axis, backward displacement of the odontoid process, and spina bifida may frequently be observed. The lateral view of the skull including the upper cervical spine is the best single projection for demonstrating the findings of diagnostic significance, of which the relation of the odontoid to Chamberlain's line, the increased basal angle, and the elevated petrous portions of the temporal bone are the most important. Anteroposterior, basal, and occipital projections will demonstrate the associated deformities in most cases.

Treatment of basilar impression and its associated Arnold-Chiari deformity is primarily surgical. The greatest operative danger is that of respiratory failure, and operations on anomalies of the hindbrain and occipitoatlantoaxial region should be undertaken with considerable circumspection. Decompression is the principal aim, although immobilization by bone graft is advised by some. Too few cases have been operated upon to establish conclusive figures, but the operative and postoperative mortality in most series seems to be from 25 to 50 per cent. Perhaps perfection of technic and greater experience with this procedure will render operations for relief of the abnormality considerably less formidable.

Case Report

The patient, a 27-year-old private, was admitted to O'Reilly General Hospital on January 11, 1943, complaining of weakness of the left arm and leg. The patient's mother had had a cerebral hemorrhage when she was 44, but otherwise the family history was noncontributory. From the age of eight to the age of seventeen, the patient had had intermittent frontal headaches associated with a feeling of "dizziness." In 1934 he was struck on the head with a bottle and also injured his head while diving; neither of these injuries produced loss of consciousness or any immediate unpleasant after-effects. In this same year the headaches experienced earlier disappeared, although he was unable to state whether this occurred before or [illegible] age of 18, he entered [illegible] he first time, noted [illegible] found himself unable to walk the length of a log without falling, and noted that he stumbled on rough ground and tended to veer to the left in walking. His condition remained about the same for seven years until May, 1941, when he suddenly noticed a stinging sensation in his left hand. Shortly thereafter weakness of the left upper extremity began, and while he was carrying a stove weakness in the left lower extremity suddenly made its appearance. After this he noticed numbness of the left side of the face, shoulder, and chest, the numbness of the face soon disappearing. He was inducted into the army on September 28, 1942, and apparently got along well until he dropped two dummy projectiles because of weakness of the left upper extremity. He was then admitted to a Station Hospital, from which he was eventually transferred to O'Reilly General Hospital. At no time had he had any diplopia or urinary disturbances.

Examination.—The head was brachycephalic with a bulging in the temporal regions. The neck was short, and the hairline extended almost to the base of the neck. Neither passive rotation of the head nor axial percussion produced pain. The optic disks were slightly pale temporally and gross hori- [illegible] lateral gaze. [illegible] iterally hypo- [illegible] involvement of the trigeminal nerves. Hypalgesia and thermhypesthesia were present from the first cervical to the seventh thoracic dermatomes on the left, but superficial and deep sensations were otherwise normal. Mild dysdiadokokinesis was present in all [illegible] e in the left arm. [illegible] duced in the left [illegible] advanced in the left lower extremity. All tendon reflexes were more hyperactive in the left extremities, and the left upper abdominal reflex was reduced. Rossolimo, Babinski, and Chaddock signs were present bilaterally but were most prominent on the left. The gait was suggestive of a spastic paraparesis. There were no other physical or mental abnormalities, and urinalysis, blood count, and blood Kahn test were normal. On roentgen examination the skull showed a symmetric bulging of the temporal bones typical of brachycephaly. The basal angle measured 150°, the petrous portions of the temporal

bones were elevated, and the full length of the odontoid process extended above Chamberlain's line. The cervical spine was apparently shortened and the spinous processes were bifid. The basiocciput was elevated. The foramen magnum was not deformed.

Course.—There was no significant change in his condition during his stay in O'Reilly General Hospital. He was discharged from the Army on March 15, 1943, on a certificate of disability.

Follow-Up.—Through the courtesy of the American Red Cross and the Massachusetts General Hospital, it was possible to follow this patient after discharge. He was admitted to the Massachusetts General Hospital, April 29, 1943, where the findings were essentially the same as those given above. A lumbar puncture revealed no significant abnormality and an electroencephalogram was normal. On about May 20, 1943, a suboccipital decompression was performed under ether anesthesia. The dura was not opened, so it was not possible to determine whether an Arnold-Chiari deformity was present. A day or two after the operation he had several seizures during which "his arms and legs became numb, and he shook all over." After this he improved steadily and was discharged on June 13, 1943 as improved. On July 13, 1943, his neck was a little stiff, but he felt that he was improving steadily and was anxious to go back to work.

Discussion

In this patient it is not possible to precisely delineate the pathoanatomic mechanism producing the neurologic abnormalities, but it seems likely that the processes of stretching, distortion, pressure, etc., mentioned previously were operating in this case just as in other cases. It is unfortunate that the findings of the postoperative neurologic examination are not available, but, since the patient presented himself for the operation because he felt himself totally unable to work, and since the last report showed him to be anxiously looking forward to going back to work, we may assume that considerable improvement had taken place. It does not seem likely that the head traumas this patient received were important in the production of the syndrome.

Summary

1. Basilar impression and certain other craniovertebroneural anomalies are described and reviewed with particular attention to differential diagnosis and cause.

2. It is felt that these conditions may all be manifestations of one basic abnormal developmental process.

3. The clinical features, roentgen findings, and surgical treatment of a case of basilar impression are presented in detail.

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ONE OF THE TRENDS OF THE TIMES

Much is being written about the effect of the World War on modern youth, specifically referring to the 'teen age. We shall not essay a discussion of this problem from the standpoint of moral delinquency, confining ourselves to comment on but one phase of the problem. Most of us are familiar with the trend of the times in this connection, among the children of the neighborhood. Formerly wont to play the games of our childhood, Duck-on-the Rock, Three-Corner Cat, etc., our youngsters now engage in wartime exhibitions.

Most any day we note a procession of "soldiers" passing our home, each carrying some sort of gadget representing arms. At other times there is organized "war," with the Allies on one side and the poor Japs on the other—you do not hear much about a war against the Germans.

Later on, through one means or another, some of the group come into possession of airguns, those instruments of the devil himself—such is our personal characterization of the alleged toys. We have seen a few instances in which these airguns have been used in "combat," wondering the while why there are not more injuries resulting therefrom.

These same airgun addicts, when not engaged in playing war, go about the alleys promiscuously shooting at "marks," or some poor bird that happens into view, not caring about the windows in the neighborhood or the residents thereof.

Then there are other weapons equally dangerous and equally destructive. Only the other day we were walking along one of our parks and noted three boys shooting at birds with home-made slingshots. As a matter of fact, we chased these boys for several blocks, wishing to talk to them about the evils of such practices.

That we are not alone in our condemnation of these things is evidenced by an editorial in the rather staid *New England Journal of Medicine*, "Injuries to the Eyes from Air Rifles," an article prompted by a letter received from the Director of the Massachusetts State Division of the Blind. It seems that in that state there is a law making it compulsory to report all injuries received from air rifles, which would seem to be evidence that such injuries are all too common.

The editorial in question recites the fact that while such injuries do not commonly result in a perforation of the globe, the damage sustained is all too often of a serious nature. Such a blow upon the eye may result in a number of serious, permanent injuries to some of the intra-ocular structures.

We are an ardent advocate of play for our youngsters, but we do believe that some of their activities might well be curbed. Some day, someone is going to compile a list of serious injuries produced by air guns and slingshots, and when that time comes our eyes will be opened—wide, and then we may do something about it.—*J. Indiana State Med. Soc., Dec., 1944*

Postgraduate Medical Education

Programs arranged by the Council Committee on Public Health and Education of the Medical Society of the State of New York are published in this section of the JOURNAL. *The members of the committee are Oliver W. H. Mitchell, M.D., Chairman, (428 Greenwood Place, Syracuse); George Baehr, M.D., and Charles D. Post, M.D.*

Series of Lectures for Tioga County

POSTGRADUATE instruction arranged for the Tioga County Medical Society will be given Wednesday evenings at 6 30 P M and will be held alternately at the Wagner Hotel, Waverley, New York, and the Green Lantern Inn, Owego, New York

The first lecture, held March 14 at the Wagner Hotel, was given by Dr Herman O. Mosenthal, clinical professor of medicine at the College of Physicians and Surgeons, Columbia University, who spoke on "Insulin in the Treatment of Diabetes"

The remaining lectures are as follows: March 21, at the Green Lantern Inn, Owego, "Rheumatic Fever," given by Dr. J G Fred Hiss, professor of clinical medicine, Syracuse University College of Medicine; April 4, at the Wagner Hotel, Waverley, "Asthma," given by Dr Stearns S Bullen, assistant professor of medicine, the University of Rochester School of Medicine and Dentistry, April 11, at the Green Lantern Inn, "General Principles in the Treatment of Syphilis," given by Dr. Girsch Astrachan, associate in dermatology and syphilology, New York Post-Graduate Medical School, Columbia University; and April 25, at the Wagner Hotel, "What Can be Accomplished in the Treatment of Heart Disease," given by Dr. Harold J Stewart, associate professor of medicine, Cornell University Medical College

This instruction is provided by the Medical Society of the State of New York, with the exception of the lectures on rheumatic fever and syphilis, which are presented jointly by the Medical Society of the State of New York and the New York State Department of Health

Relation of Vitamins to Disease

DR. NORMAN JOLLIFFE, associate professor of medicine at New York University College of Medicine, spoke on "The Relation of Vitamins to Disease" before the Broome County Medical So-

Penicillin Therapy Instruction

INSTRUCTION in penicillin therapy was given at a joint meeting of the Greene County Medical Society and the staff of the Memorial Hospital of Greene County on February 22 at the Memorial Hospital of Greene County Dr R C Arnold, Surgeon, USPHS, of the Venereal Disease Research Laboratory at the U S Marine Hospital on Staten Island, gave the lecture, which was entitled "Penicillin"

This instruction was presented as a cooperative endeavor between the Medical Society of the State of New York and the State Department of Health.

Two Lectures in Cortland County

TWO lectures have been planned by the Medical Society of the State of New York and the New York State Department of Health for the Cortland County Medical Society. The lectures will be held

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stetrics, Syracuse University College of Medicine. Dr. Hughes will speak on "Hemorrhages of the Latter Part of Pregnancy"

"The Diagnosis and Treatment of Meningitis" will be discussed at the second meeting on May 18 by Dr. O. D Chapman, professor of bacteriology and parasitology, Syracuse University College of Medicine.

Cardiovascular Emergencies

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lar Emergencies" to the Jefferson County Medical Society. His lecture will be held on April 12 at 6:00 P M at the Black River Valley Club in Watertown

Amendments to Constitution and By laws

IN ACCORDANCE with Article XIII of the Constitution and Bylaws, the following proposed amendments are published for the information of the House of Delegates and will be considered at its next meeting.

Proposed Amendment to Article XI, Section 1

At the annual meeting of the St. Lawrence County Medical Society held at Potsdam, November 11, 1943, the following motion was carried:

"That the President appoint a committee consisting of two delegates and two other members to proceed with the movement to bring about a transfer from the Fourth to the Fifth District Branch."

Accordingly, we suggest the following amendment to the Constitution of the Medical Society of the State of New York:

"Article XI, Section 1, shall be amended so that there be deleted from the fourth paragraph the name 'St. Lawrence;' and so that there be added to the fifth paragraph the name 'St. Lawrence.' These paragraphs would then read:

'The Fourth District Branch shall comprise the members of the Medical Societies of the Counties of Franklin, Clinton, Essex, Hamilton, Fulton, Montgomery, Schenectady, Saratoga, Warren, and Washington.

'The Fifth District Branch shall comprise the members of the Medical Societies of the Counties of Onondaga, Oneida, Herkimer, Oswego Lewis, Madison, Jefferson, and St. Lawrence.'"

Proposed Amendment to Chapter XVI, Section 2—Action Delayed one Year

"All papers read before the Society at its Annual Meeting by its members shall become the property of the Society, but shall not be accepted necessarily for publication in the NEW YORK STATE JOURNAL OF MEDICINE unless approved by the Editor responsible for this function."

Proposed Amendment to Section 2 of Chapter XV of Bylaws—Action Delayed One Year

This is presented on behalf of the Medical Society of the County of Queens:

"It is proposed to amend the first paragraph of Section 2, Chapter XV, of the Bylaws to read as follows:

'Chapter XV, Section 2. When an active member in good standing in any component county medical society removes to another county in this State, transfer of his name to the roster of the county society to which he removes shall be contingent upon the acceptance of the Board of Censors or Comitia Minora of the latter society. Such transfer shall be made at the member's request and be effected without cost to him and provided that he files a certificate with the secretary signed by the president and secretary of the component society from which he removes as to his good standing in such society. No member, however, shall be an active member of more than one component society, nor shall any component county society accept a physician residing in another county in any other way than in accordance with the law governing transfers.'"

Chapter III, Section 2. "There shall be added at the end of the present section, the following:

When available, a voting machine shall be used instead of printed ballots."

Respectfully submitted,
LOUIS H. BAUER, M.D., *Speaker*
W. P. ANDERTON, M.D., *Secretary*

MORE ABOUT MEDICAL WRITING

Classical standards of sentence and paragraph structure are being disregarded by a good many accepted writers in general literature, but they are hard reading and it is not at all sure that such writing will endure. One may disregard subject-predicate relationships, misused nouns and adverbs, and other words in spoken communication and still remain intelligible; but doing so on a printed page makes it very hard for the average reader, who still remembers the rules taught in school. Joyce, Stein, and in large part Faulkner, Hemingway, Wolfe, and Dos Passos, in their writings, probably do not intend to communicate ideas but merely to note down flights and associations occurring in the mind of the author at the time of writing, and meaning nothing to anyone else—even, one doubts, much of permanent value to himself. But when attempting to tell someone what is in your own mind about endocarditis, the style of D. H. Lawrence is not conducive to clarity.

Wilson Follett laments "The Death of the Sentence" in the *Atlantic* for October, 1937; and if he had been reading medical instead of general literature, he would have seen that many sentences had not yet died, but had simply been mangled and allowed to live, crippled and pitiable. Bernard De Voto comes to the defense of the style of modern writers in the *Saturday Review of Literature;* but he defends only changes in structure from the more verbose earlier styles. There is no defense for structures which are so disjointed as to be meaningless.

Medical Legislation

Bulletin No. 4 issued by the Legislative Bureau of the Medical Society of the State of New York, February 5, 1945

THIS will be the last list of bills sent you before the conference of County Society Legislative Chairmen at the Hotel Ten Eyck, Albany, on Friday, February 16. Any bills in which you may have been interested that were introduced between Febru-

meetings our committee meeting will have to be kept under the number fifty this year; otherwise we would have had difficulties arranging for this meeting and probably would not have been granted permission. It is regretted that we could not extend invitations to all who might be interested in attending this meeting, but we have not been able to do so under the present restrictions governing such meetings.

At the present time we have received no information as to hearings on the chiropractic bill. It is hoped that all of the members of the Society and the legislative committees of the county societies and of the Women's Auxiliaries will keep up their activ-

bill is voted on is the important time for these letters to come in. Every contact and every letter will count a great deal.

Due to the weather conditions and the difficulties of traveling, the fuel shortage, etc., work in Albany has been somewhat handicapped. Even the members of the Legislature have been inconvenienced by these conditions and the number of bills that have been submitted during this last week is not very large.

The budget bills have been submitted. The

Committee but remains on the committee. Senator H. W. Griffith has been appointed chairman of this committee.

New Bills Introduced

Senate Int. 415—Warner; Assembly Int. 415—Reoux, provides that a nonexpert witness may give testimony in the nature of inference or opinion if the facts are based on personal observation and no special knowledge, skill, experience, or training is required to draw such inference or state such opinion. Referred to the Codes Committee in the Senate and the Judiciary Committee in the Assembly.

Comment: This bill was not reported earlier. It has been called to our attention by some who feel that it is of great importance. We have been requested by a member of the legislative committee of the State Dental Society to study this bill as they feel that there are dangers in it both for the physician and the dentist.

Senate Int. 650—Hammond, relative to the vitamin and mineral content of flour and bread. Referred to the Agriculture Committee.

Comment: Same as *Assembly Int. 688—Ward*, reported in Bulletin No. 3.

Senate Int. 657—Paris; Assembly Int. 775—Crews, provides that in the case of temporary total and permanent partial disabilities both resulting from the same injury the claimant shall receive separate workmen's compensation awards for each

Senate Int. 721—W. J. Mahoney, authorizes the State Health Commissioner to establish, equip, and conduct a suitable program to collect and distribute human blood and its derivatives for the treatment of sick and injured persons and the preventing of certain diseases; $375,000 is appropriated. Referred to the Finance Committee.

Senate Int. 725—Coudert, permits waiver of privi-

Codes Committee.

Comment: This bill was recommended by the executive committee of the Surrogates' Associa-

workmen's compensation cases such a physician as the employee c participate in or carrier so re mittee.

Comment: This section of the Workmen's Compensation Law was amended in 1944. This amendment cancels the amendment of 1944 and changes the wording of the law back to that of 1944 before the amendment.

Assembly Int. 842—Travia, provides that the employee, employer, or carrier in a workmen's compensation case may apply for the examination of a claima e commission.

Asse that disciplinary proceedings against persons practicing medicine and other professions may be heard by three persons, one of whom may be a member of

there is nmittee $4,000 and ex-

penses for each member of the committee, spent in conducting hearings. Referred to the Ways and Means Committee.

Comment: Printed copies of this bill have not

of testimony and the number of hearings have be-

come so great as to be a burden on the Regents, who do not feel that they have the time to give to these duties.

Assembly Int. 915—Austin, provides that the Industrial Commissioner shall, instead of may, employ physicians of outstanding qualifications as committees of expert consultants for workmen's compensation purposes. Each physician shall receive pay as prescribed by the Commissioner instead of an annual salary of $7,500. Referred to the Labor Committee.

Senator Hammer has introduced a bill—*Int. 663*—that strikes out the provision that dogs, during a rabies epidemic, may be at large if muzzled. It also permits the dog warden or peace officer to kill any dog found at large during an epidemic. The same bill has been introduced in the Assembly by Mr. Stuart, *Int. 767*. Both bills have been referred to the Health Committees.

Action on Bills

Senate Int. 367—Hammer—Health Law, local officers, powers, reported.

Senate 368—Hammer—Health Law, milk supply, embargo, reported.

Senate Int. 369—Hammer—Health Law, venereal diseases, reported.

Senate 370—Hammer—Health Law, laboratories, inspection, reported.

Senate 371—Hammer—State Hospital Superintendents, Directors, reported.

Assembly Int. 254—Stuart—Health Law, milk supply, embargo, third reading.

Assembly Int. 255—Stuart—Health Law, laboratories, inspection, third reading.

Assembly Int. 283—Stuart—Health Law, local officers, powers, third reading.

Assembly Int. 284—Stuart—Health Law, venereal diseases, third reading.

Assembly Int. 286—Stuart—State Hospital Superintendents, Directors, third reading.

Assembly 372—Ferril—Lien Law, hospital liens, third reading.

Assembly Int. 555—Mailler—Education Law, medical practice, third reading.

Assembly Int. 560—Pillion—Professions, license renewal, veterinarians, third reading.

JOHN L. BAUER, M.D.,
WALTER W. MOTT, M.D.,
LEO F. SIMPSON, M.D.,
Committee on Legislation
ROBERT R. HANNON, M.D.
Executive Officer

NEW APPROACH TO CANCER

By an act of Congress, April has been designated as "Cancer Control Month." The American Cancer Society seizes the opportunity to press its educational work on a new scale and with new energy. A campaign to raise $5,000,000 is to be directed by a board of which Eric Johnston is the chairman, and which numbers among its members representatives of labor, business, the press, and Congress.

With such an organization the Society's state units of 300,000 women volunteers and thousands of men should be able to reach the multitude. It is especially important that labor should play a conspicuous part in bringing home the facts about the recognition of early cancer and the cures that can be effected by the prompt eradication of a malignant growth.

With the labor unions enlisted through their leaders, the fight against cancer can be waged more effectively than by the devoted band of welfare workers who have to rely on their own eloquence and ingenuity.

There is no nobler cause than this. Cancer is the country's second largest killer. Only heart disease claims more victims. With 600,000 Americans now suffering from cancer, there is work to do—work which can reduce the death rate from cancer by one-third to one-half.—*Editorial, New York Times, Dec 13, 1944*

CLINICAL ORAL PATHOLOGY CONFERENCE IN APRIL

The New York Institute of Clinical Oral Pathology will hold its one hundredth monthly conference at the New York Academy of Medicine on Monday evening, April 30, 1945.

The subject of the meeting will be "A Survey of the Antibiotic Problem." This will be discussed by members of the medical and dental professions from both the theoretic and the clinical standpoints.

Members of the medical, dental, public health, and other professional groups are cordially invited. For further information address all communications to the Executive Secretary, 101 East 79th Street, New York 21.



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Medical News

National Foundation Reports Grants of $1,828,859

THE National Foundation for Infantile Paralysis authorized grants and appropriations totaling $1,828,859 in the eight-month period between September 30, 1943, and May 31, 1944, for research, education, and the training of physical therapists, according to the 1944 annual report of the Foundation made public on February 23 by Basil O'Connor, president.

In addition, a special fund of $2,000,000 for epidemic aid and other emergencies was established by the trustees as of May 31, the report said. Last summer's epidemic—the second worst outbreak in the history of the United States—drew upon this newly created fund to the extent of $739,860, to supplement chapter funds in local communities hard hit by the 1944 outbreak.

During the period covered by the report the national headquarters received $5,191,148 as its share of the 1944 March of Dimes appeal, an additional $5,293,232 remaining with the Foundation's county chapters. Receipts from other sources, including $240,000 donated by the producer of the motion picture "Forever and a Day," increased the total income of the Foundation for the fiscal eight-month period to $5,452,593.

Much was learned from the 1943 epidemic, in which 12,429 cases were reported, exceeded only by those reported in 1944, 1931, and in the great outbreak of 1916, the report said. The "method of the spread of the disease is better understood. Some of the mystery of infantile paralysis is being dispelled. But enough has not yet been learned to set into operation practical control measures. More epidemics must be studied, and laboratory methods must be greatly improved before the final answer can be given."

"Much new knowledge has been gained," the report added, "concerning the distribution of the virus of infantile paralysis in nature and its behavior in the affected individual. But how it spreads from person to person is yet undetermined.

"It is, however, known that the virus is exceedingly widespread and that there are many infected persons who show no paralysis—that paralysis, in fact, may almost be considered as a complication of a common infection which ordinarily produces few, if any, important or characteristic symptoms.

"Grants are in operation, therefore, to study in minute detail factors that may operate to influence the susceptibility of patients to the virus, such as diet, state of nutrition, heredity, and body chemistry. With aid from the National Foundation, grantees seek to find the answers in epidemic areas and in their laboratories.

"Other grantees, employing the increasing fund of knowledge and skills that have improved greatly during the past few years, are studying different strains of virus and the production of experimental immunity. Others are searching for curative drugs."

Public Health Service Sends Four to Liberia

FOUR more members of the Public Health Service mission to Liberia left the United States in February for Monrovia, capital of the West African republic, the Public Health Service announced on February 13.

The mission, which will conduct a five-year health and sanitation program directed primarily to the control of communicable diseases, is headed by Dr. John Baldwin West, senior surgeon (R), who flew to Liberia with two associates in November. A fourth member joined the mission in December.

Dr. West has since returned to the United States but will return to Liberia with the group leaving this week, the Public Health Service said. The four new members of the mission are Dr. Charles I. West, Jr., surgeon (R); Alma Jackson, assistant sanitarian (R); Virginia Ford, assistant nurse officer (R); and Theresa Colwell, assistant nurse officer (R). Dr. Louis R. Middleton, dental surgeon (R), will join the mission at a later date. Two additional members of the mission remain to be named.

Forum on Allergy Awards Annual Prizes

Dr. Jonathan Forman, Executive Director of the Seventh Annual Forum on Allergy, announced that the Marcelle Award has been won by Dr. Mary Loveless, New York City, for her attempt to correlate thermostabile antibodies with clinical results and the consequent use of booster doses which may well shorten and simplify our treatment of hay fever.

The second prize in the Marcelle Award went to Dr. Charles F. Code, of the Section on Clinical Physiology of the Mayo Foundation at Rochester, Minnesota. This prize was awarded for his studies of the role of histamine in the production of anaphylactic and allergic reactions. Dr. A. R. Rich, of Johns Hopkins University, and his associates received honorable mention for their work on serum sickness and periarteritis, as did Dr. Frank Simon, of Louisville, Kentucky, for his studies of the allergens in human dander.

For several years now the Annual Forums on Allergy have given a gold medal in recognition of a life's work in the field. This year the Gold Medal went to Milton J. Rosenau, Chapel Hill, North Carolina, Charles Wilder, Professor of Preventive Medicine and Hygiene, Emeritus, Harvard University, and Professor of Epidemiology, School of Medicine, University of North Carolina.

The selection of the recipients of these awards was made by a distinguished group of allergists. They were: Dr. Sam Feinberg, of Northwestern University, Chicago; Dr. Harry Alexander, editor of the *Journal of Allergy*, St. Louis; Dr. Marion Sulzberger, editor of the *Journal of Investigative Dermatology*, New York City; Dr. French K. Hansel, president of the American College of Allergists and editor of the *Annals of Allergy*, St. Louis; Dr. Ethan Allan Brown, editor of the Review and Abstract Section of the *Annals of Allergy*, Boston;

[Continued on page 650]

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[Continued from page 648]

Dr. Karl D. Figley, secretary of the American Academy of Allergy, Toledo, Ohio; Dr. Fred Wittich, secretary of the American College of Allergists, Minneapolis; Dr. Robert Chobot, retiring president of the American Academy of Allergy, New York City; and Dr. Francis Rackemann, whose annual reviews of allergy in the *Archives of Internal Medicine* are so well known and appreciated, of New York City.

County News

Albany County

Dr. B. L. Vosburgh, medical director of the General Electric Company, spoke at a meeting of the Capital District Society of Safety Engineers on February 20 at the Van Curler Hotel, Schenectady. He discussed "The Role of the Industrial Physician in the Safety Department."

Dr. Vosburgh was graduated from Albany Medical College in 1922. After interning at the Ellis Hospital, Schenectady, he entered the industrial medical field and has had his present position since 1928.*

• • •

Leaders of the Albany medical and dental profession, hospital authorities, and pharmaceutical association met on February 9 at 1:15 P.M. at the DeWitt Clinton Hotel to discuss possible facilities for the care of service-connected veterans returning to the Albany area.

Dr. Arthur J. Wallingford, president of the county society, represented the physicians; Dr. Henry Schwartz, president of the Albany Dental Society, spoke for the dentists; Dr. H. Benard Milstein was heard on behalf of the podiatrists; Jacob Cheris, president of the Albany Pharmaceutical Society, represented the druggists, together with Francis J. O'Brien, dean of the Albany College of Pharmacy.

All heads of hospitals in Albany were present: Dr. Thomas Hale, Jr., of Albany Hospital, Sister Mary Esther, of St. Peter's Hospital, and Miss Ellen T. Young, of Memorial Hospital.*

Bronx County

The following have been elected to office in the Bronx Pediatric Society for the year of 1945: president, Dr. Jacob H. Turner; vice-president, Dr. Walter Levy; secretary-treasurer, Dr. Harry S. Pizer.

The Society meets on the second Wednesday of each month, except June, July, August, and September, at the Concourse Plaza Hotel.

Chautauqua County

The Jamestown Medical Society held its first dinner meeting of the year in the Hotel Jamestown on January 25 at 6:30 P.M.

Three local physicians spoke on "Toxemias of Pregnancy," discussing various phases, causes, and treatment of the ailment. They were: Dr. D. C. Perkins, Dr. E. J. Kelley, Jr., and Dr. M. L. Bowman.

Dr. George F. Caccamise, president of the society, presided at the session. A floor discussion followed the lectures.*

Chenango County

Coming to Norwich at the suggestion and recommendation of the army and navy procurement and assignment service for the relocation of physicians, Dr. Emil G. Piana has opened an office there for the practice of general medicine.

Dr. Piana is a graduate of the Sorbonne University of Paris, France. Upon the declaration of the war in 1939, Dr. Piana was in private practice in France and at that time joined the French army. After the armistice of 1940 he came to this country. For the last three years he has been a resident physician in various hospitals of the New York City area.*

Columbia County

Dr. Harry A. Pattison, medical director of Potts Memorial Institute, discussed tuberculosis on January 24 in Hudson. This program was sponsored by the Tuberculosis Eradication Association of Columbia County.

Dr. Pattison is well known in Columbia County as an authority on tuberculosis. For the past seventeen years he has devoted all his time to the rehabilitation of the tuberculous. He has visited nearly all the various rehabilitation centers in the United States, England, and continental Europe, and has done much to make Potts Memorial one of the most outstanding rehabilitation centers in this country.

Dr. Pattison explained tuberculosis through the use of x-ray films, microscopic slides, and germ cultures.*

Erie County

The strength and influence of the Medical Society of Erie County were pledged to the all-out war on tuberculosis on January 23.

Dr. A. H. Aaron, in his inaugural address as president of the society at its meeting in Hotel Statler, outlined a comprehensive program of medical protection and medical education, designating as one of his most salient points full support of the anti-tuberculosis drive.

He lauded the recent announcement that the Buffalo Tuberculosis Association will purchase a mobile x-ray unit, if the Health Department does not do so, and suggested that the work of the mobile unit be supplemented by the establishment of diagnostic chest clinics in hospital outpatient departments to which people with positive findings can be referred.*

Kings County

Developments in the treatment of syphilis were discussed on February 1 by Dr. Arthur W. Grace in the third of a series of four lectures at the Hoagland Laboratory of the Long Island College of Medicine.

Dr. Grace, professor of clinical dermatology and syphilology at the college, outlined advances made in treatments from 1493, when blood letting was practiced, until the present use of penicillin. He told of the discovery and use of mercury to treat syphilis in 1500, and said it was considered the only treatment until potassium iodide was introduced about three hundred years later.

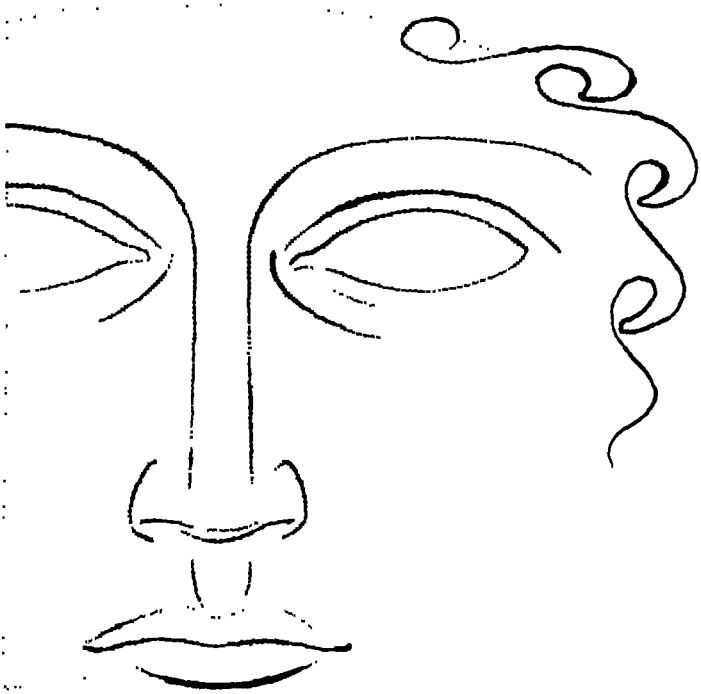
In 1909, he said, Erhlich proved the efficacy of salvarsan, an arsenic compound, which continued to be the main drug used as a therapeutic measure until neopharsan and mapharsen were introduced in 1934.

He discussed fever therapy and heat treatments

[Continued on page 652]

* Asterisk indicates that item is from a local newspaper.

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MANUFACTURING CHEMISTS TO THE MEDICAL PROFESSION SINCE 1858

[Continued from page 650]

combined with the administration of mapharsen, which were first used extensively four or five years ago.

Dr. Grace outlined the discovery and production methods of penicillin and cited advantages and disadvantages of the new penicillin treatments as well as of all previous methods of therapy.*

• • •

Dr. William Dock discussed heart disease on January 25 at the Long Island College of Medicine.

Dr. Dock's lecture, the second in a series sponsored by the Friends of Long Island College of Medicine, was illustrated with a color film which showed the functions of a human heart when normal and under diseased conditions.*

Monroe County

Dr. Roland L. Maier, instructor of surgery in the medical school of the University of New York, was the guest speaker at the February meeting of the Rochester Academy of Medicine on February 6. His topic was "The Present Status of the Subject of Treatment of Hernia."

Dr. John J. Finigan, president of the Academy, presided at the business session which opened the meeting.*

• • •

On February 20, Dr. Albert D. Kaiser spoke on "Health Insurance" at a luncheon meeting at the Rochester Club, analyzing the medical insurance plan being proposed by the county society.*

• • •

Dr. Arthur M. Johnson, Rochester health officer since 1932, will retire March 31, Public Safety Commissioner Thomas C. Woods announced on February 3.

Dr. Johnson was educated in Binghamton public schools and at Albany Medical College. He served a two-year internship at Ellis Hospital, Schenectady, and in 1897 entered private practice in Rochester. He became coroner's physician in 1902 under Dr. Henry Kleindienst and remained in that position two years.

From 1905 to 1921 Dr. Johnson was a Health Bureau physician but over the period of World War I, he was on leave of absence with American forces. On March 3, 1921, Dr. Johnson was named second deputy health officer, a position which he held on a part-time basis until January 31, 1925. From February 1, 1925, to August 1, 1932, Dr. Johnson gave full-time service as second deputy health officer. He succeeded Health Officer Dr. George W. Goler.*

New York County

Compulsory health insurance's merits and defects were debated on February 3 by Dr. Louis H. Bauer, member of the board of trustees, American Medical Association, and Dr. Sidney M. Greenberg, instructor in medicine, Cornell University Medical College, who defended the original Wagner-Murray-Dingell bill.

The speakers presented their views before guests of the regular Saturday "nonpartisan discussions" sponsored by the National Republican Club at its headquarters, 54 West 40th Street. Both talks were heard over Station WOR.

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At the social hygiene program of the New York Tuberculosis and Health Association on February 7, at 11:00 A.M., Dr. George W. Kosmak, Editor, *American Journal of Obstetrics and Gynecology*, presided over a discussion of "Venereal Diseases in the Postwar Period" by Col. Thomas B. Turner, MC, USA, Dr. Isador Rosen, clinical professor of dermatology and syphilology, New York Post-Graduate Medical School and Hospital, and Mr. Herbert H. Marks, of the Statistical Bureau, Metropolitan Life Insurance Company. This session was sponsored by the Committee on Public Health Relations of the New York Academy of Medicine.

At 3:00 P.M. Dr. David J. Kaliski, syphilologist at Beth Israel Hospital, presided over a session consisting of two lectures: "Recent Advances in Syphilis Therapy," by Dr. Joseph Earle Moore, director of the syphilis division, department of medicine, Johns Hopkins Hospital, and "Significance of Serologic Tests in the Treatment of Syphilis," by Dr. Evan W. Thomas, associate professor of medicine and assistant professor of dermatology and syphilology, New York University College of Medicine.

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The regular monthly meeting of the Association for the Advancement of Psychotherapy was held at the Academy of Medicine on February 23 at 8:30 P.M. Dr. William Wolf spoke on "Relation of the Endocrine Glands to Emotion and Crime"; the discussion was opened by Dr. Max Gelfand.

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The regular meeting of the Association for the Advancement of Psychoanalysis was held at the Academy of Medicine on February 28 at 8:30 P.M. The program consisted of a lecture entitled "Psychoneurosis and the Psychology of Action," by Dr. Charles R. Hulbeck, with discussion opened by Dr. Valer Barbu.

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Recognition of the close parallel between training requirements of the dental profession and general medicine has led to the incorporation of Columbia University's faculty of dentistry into the faculty of medicine, it was announced on February 6 by Dr. Nicholas Murray Butler, president of the university.

Dr. Butler reported that the action was taken with a view toward developing an educational policy aimed at strengthening dental education, practice, and research.

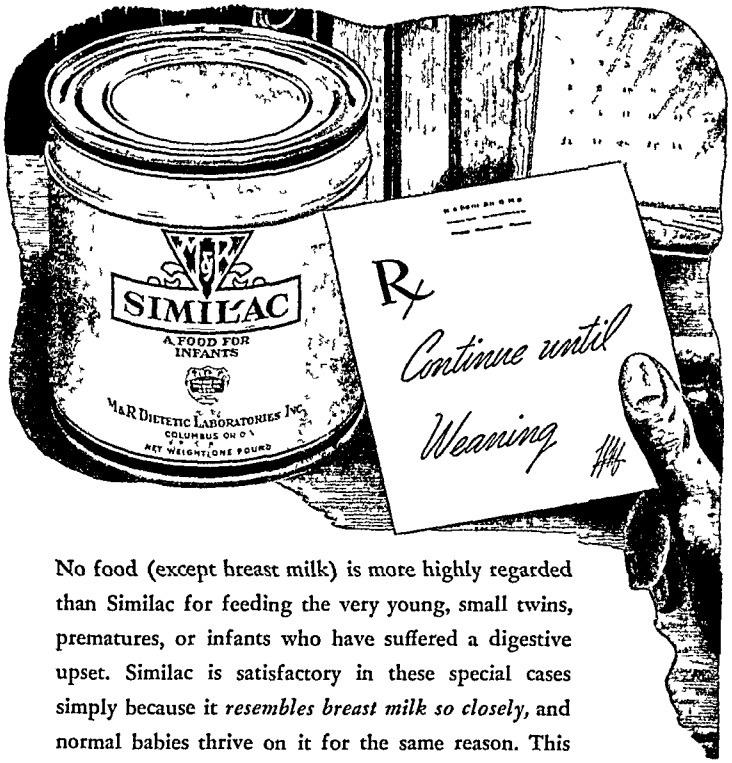
It was explained that many ward and clinic patients suffer from a combination of dental and medical conditions, and that closer coordination of dental and medical care could be accomplished more easily through unified action and direction.

The staff in dentistry will retain its identity as a professional group within the faculty of medicine, according to Dr. Butler, and will have departmental autonomy in carrying out the university's educational program in dentistry, which will be continued by the School of Dental and Oral Surgery.

Oneida County

Dr. Fred G. Jones was elected to the presidency

[Continued on page 654]



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[Continued from page 652]

of the Utica Academy of Medicine at the dinner meeting at the Utica Hotel on January 18. He succeeded Dr. Robert C. Hall, who has been president for the last year. Other officers are: Dr. Milton D. Graham, vice-president; Dr. H. M. Mitchell, secretary; and Dr. H. D. Parkhurst, treasurer.

A symposium on "The Exserviceman and the Private Physician" was presented by a group of speakers including Lt. Col. Fred C. Locke, Batavia; Majs. Lloyd Clarke and Solomon Haimes, Rhoads General Hospital; and Warren C. Tucker, Utica, lawyer.

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Dr. J. J. Wineburgh, of Utica, who enlisted in the Army Medical Corps as a captain in 1942, has been honorably discharged at Walter Reed General Hospital in Washington because of a medical disability.

He resumed his active practice of internal medicine on February 2 in Utica, specializing in electrocardiology, cardiology, and endocrinology.

Doctor Wineburgh served for eighteen months in the China-Burma-India theater under General Stilwell as medical, sanitary, and malaria control officer, giving medical care to British, Chinese, Australian, and native Indian troops, as well as Americans, and obtaining valuable experience in internal medicine, malaria, and other rare and common tropical diseases. Since his return to this country he has served in several of the larger Army general hospitals.*

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Dr. Ursula K. Arnsdorff, who was resident physician at the General Hospital from April, 1944, until she resigned her post in January, has opened an office in Utica for the general practice of medicine.

She continues to serve at the hospital in a part-time capacity and is on duty there alternate nights and in emergencies.*

Ontario County

Dr. Frederick C. McClellan was elected president of the Canandaigua Medical Society on January 8 at the annual session held in the Canandaigua Hotel, with Dr. J. W. Howard, East Bloomfield, as host. Dr. McClellan succeeds Dr: E. C. Merrill, now in service with the Army Medical Corps.

Dr. A. W. Armstrong was named vice-president and Dr. Harry M. Smith was re-elected secretary and treasurer.

A paper on "Phosphatase" was read by the new president.*

• • •

Dr. C. Harvey Jewett, of Canandaigua, was host to the Canandaigua Medical Society on February 2. Dinner was served at 6:15 P.M. Dr. James F. Maltman presented a paper.*

Orange County

Dr. William J. Carr, of Newburgh, is being congratulated by friends on his having completed fifty years of practice of his profession.

Dr. Carr graduated from Bellevue Hospital Medical School on March 29, 1894, and was licensed to practice in New York State on December 4, the same year. In January, 1895, he went to Kingston to practice, but in March moved to Newburgh and has continuously practiced in Newburgh since then. For forty-one years he was on the medical and surgical staffs of St. Luke's Hospital. From 1897 to 1904 he was Health Officer of Newburgh.*

Orleans County

Dr. John G. Ellis, of Albion, formerly of Holley, has been appointed an Orleans County Coroner.

He will fill the vacancy caused by the death of Dr. Paul H. Mahaney, of Albion. Dr. Ellis was graduated from the University of Buffalo School of Medicine.

Dr. Ellis practiced his profession successfully in Holley for several years before being called into government service, when he was located in Brunswick, Georgia.

Commissioned a lieutenant, senior grade, in the Navy on June 5, 1944, Dr. Ellis served until December 29, last year, when he received a medical discharge.*

Putnam County

One hundred residents of Putnam County attended a dinner meeting at the Gipsy Trail Club on February 7, sponsored jointly by the county society and the Lake Mahopac-Carmel Rotary Club.

Following the dinner there was a debate on "Socialized Medicine" as outlined in the Wagner-Murray-Dingell Social Security Bill. Dr. Ernest Boas spoke in favor of the plan and Dr. Louis Bauer in opposition. Winslow Carlton was the mediator.*

Queens County

Two Queens doctors who left private practice to become Army surgeons have been decorated with the Bronze Star Medal, one for heroic achievement in Anguar Island in the Pacific and the other for meritorious service in France.

The doctors are Lt. Robert W. Conrad of Jamaica, and Lt. Col. Frank Huber, Garden City.

Lieutenant Conrad, serving as battalion surgeon with the 81st (Wildcat) Division, was decorated for heroism on Anguar.

Colonel Huber who was attending radiologist at Lenox Hill Hospital, Manhattan, before he went into the Army Medical Corps twenty-eight months ago, is serving as executive officer and chief of x-ray at the 12th Evacuation Hospital somewhere in France.

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The stated meeting of the county society was held on January 30 at 9:00 P.M. Maj. Karl F. Mech, MC, chief of penicillin section, Halloran General Hospital, spoke on "Wound Healing with Special Reference to Penicillin." A panel exhibit on meningitis control was presented by the Scientific Exhibit Committee, through the courtesy of the Department of Health.

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On February 2, at 4:30 P.M. Dr. Asher Winkelstein, associate in medicine and chief of the gastroenterology clinic, Mt. Sinai Hospital, spoke before the county society on "Psychosomatic Disturbances of the Gastrointestinal Tract." On February 9, at 4:30 P.M., Dr. Maurice Bruger, assistant clinical professor of medicine and chief of the division of pathologic chemistry at the New York Post-Graduate Medical School and Hospital, spoke on "Newer Laboratory Tests." These lectures were sponsored by the committee on graduate medical education of the county society.

[Continued on page 656]

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[Continued from page 654]

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On February 16 at 4:30 P.M. Dr. Milton J. Raisbeck, associate professor of medicine, New York Medical College, and cardiologist, Fifth Avenue Hospital, New York City, spoke before the county society on "Cardiovascular Emergency."

Richmond County

Plans for the establishment of a permanent office of the county society were discussed at the first meeting of 1945 on January 10 in the Richmond Health Center, St. George.

Power was voted the executive committee to select the headquarters. Announcement of the address and telephone number was made at the meeting on February 14 in the center.

The society has endorsed and will give its full cooperation to Mayor LaGuardia and medical bodies in their endeavors to work out a plan for health insurance, it was announced.

Dr. Milton S. Lloyd, newly elected president, presided, and outlined plans for the coming year.*

Rockland County

At the Nanuet P. T. A. meeting on January 8 Dr. Robert L. Yeager, Jr., Superintendent of Summit Park Sanitarium, gave a talk and showed x-rays on tuberculosis.*

Schenectady County

The regular monthly meeting of the county society was held on February 6 in the Ellis Hospital Library. Dr. S. A. Cosgrove, medical director and superintendent of Margaret Hague Maternity Hospital, Jersey City, and clinical professor of obstetrics at Columbia University's College of Physicians and Surgeons, spoke on "Cesarian Sections, Indications and Types." The paper was discussed by Drs. W. M. Mallia and C. E. Wiedenman.

Westchester County

Psychosomatic problems constituted the subject for discussion at the regular meeting of the county society, held at the New York Hospital, Westchester Division, White Plains, on January 16 at 8:30 P.M. It is estimated that 30 per cent of a doctor's practice deals with these problems.

Dr. James Flexner, of White Plains, presented a paper on "The Medical Approach to Psychosomatic Problems," and Dr. James H. Wall, assistant medical director of New York Hospital, Westchester Division, discussed "The Psychiatric Approach to Psychosomatic Problems."

• • •

More than forty physicians and guests attended the meeting of Mount Vernon Medical Society on January 11 at The Knolls when Dr. Sidney Bassin, director of the chest clinic of the Mount Vernon Department of Health, presented a talk on the treatment of pulmonary tuberculosis. Mrs. Frank Sandberg, chairman of the Mount Vernon branch of the American Red Cross Canteen Corps, also was a guest speaker.

Stressing the importance of early diagnosis for the successful treatment of a tubercular condition, Dr. Bassin presented various methods of collapse therapy and various forms of chemotherapy. He supplemented his remarks with a sound motion picture.

The subject was further discussed by Dr. Theodore Jost, City Commissioner of Health, and Dr. Erich Restin, of the Mount Vernon Hospital.

Mrs. Sandberg discussed "services to our armed forces," relating personal experiences during her canteen work.

Visting and public health nurses were guests of the society.*

Necrology

Fred H. Albee, M.D., F.A.C.S., of New York City, orthopedic surgeon, died February 15 at the age of 68 after a brief illness. Born in Maine, he was graduated from Harvard Medical School (1903). He was formerly professor of orthopedic surgery at New York Post-Graduate Medical School and was president of the International College of Surgeons from 1939 to 1943. Dr. Albee achieved international fame through the invention of the Albee bone mill, which enabled surgeons to perform bone operations formerly impossible, and through his method of grafting healthy bone into diseased bone. He had written extensively on his specialty and lectured throughout the world. In 1937 he described a new treatment for osteomyelitis, and his operation for tuberculosis of the spine, demonstrated in London in 1913, also was one of his major contributions to orthopedic surgery. Dr. Albee's life work is described in his autobiography, *A Surgeon's Fight to Rebuild Men.*

Ellice M. Alger, M.D., F.A.C.S., of New York City, ophthalmologist and founder of the National Society for the Prevention of Blindness, died February 18 at the age of 74 after a long illness. For more than twenty-five years professor of ophthalmology in the New York Post-Graduate Medical School, he was also a surgeon at Post-Graduate Hospital. In 1938 he was awarded the Leslie Dana gold medal for outstanding achievements in the prevention of blindness and the conservation of vision. He was former president of the New York Ophthalmological Society, and a chairman of the section of ophthalmology of the New York Academy of Medicine. Born in Burlington, Vermont, he was graduated from the University of Vermont Medical School in 1883.

Gustav A. Fensterer, M.D., of Garden City, Long Island, died February 8 at the age of 78. He was the first president of the Nassau County Medical Society, and had returned to practice because of the shortage of doctors, after retiring in 1934.

Edward Milton Foote, M.D., F.A.C.S., of New York City, died February 14 at the age of 79, after a brief illness. Born in Syracuse, Dr. Foote received his medical degree from Harvard Medical School in 1890. Former chief of surgery at the Vanderbilt Clinic, he had served as visiting surgeon at the New

[Continued on page 658]

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[Continued from page 656]

York Hospital, the New York Skin and Cancer Hospital, consulting surgeon at Randall Island Hospital and School, instructor in surgery at the College of Physicians and Surgeons, Columbia University, and clinical professor of surgery at New York Polyclinic Medical School and Hospital. He was the author of a textbook, *Minor Surgery*. Dr. Foote had been a practicing physician in New York City from 1891 until his retirement in 1935.

Frank Grauer, M.D., of New York City, died on February 16 at the age of 80, after a brief illness. Born in New York, a graduate of Bellevue Medical School in 1884, he spent several years in postgraduate study abroad as well as at Harvard and Johns Hopkins.

He became associated with Drs. E. G. Janeway and H. W. Biggs, and devoted himself to pathologic research, serving as pathologist to the Harlem City and Lutheran Hospitals. Private practice engaged his attention for fifty years.

William Latzko, M.D., obstetrician and gynecologist, died February 11 at Beth Israel Hospital. Born in Vienna, he received his medical degree at the University of Vienna in 1886 and for a number of years was a member of the faculty there. He became head of the gynecologic department of the Kaiserin Elisabeth Hospital in 1910 and developed methods of treatment for various diseases which came into general use. He developed a method for performing cesarean section by the extraperitoneal route, to which his name was given. Leaving Vienna in 1938, he went to Buenos Aires, where he was a member of the National Academy of Medicine and Obstetrical and Gynecological Society, and later came to New York. In this city he was consulting gynecologist at Beth Israel Hospital. He was the author of more than two hundred scientific papers.

Leon L. Kelley, M.D., former medical adviser of Herkimer County, died at his home in Middleville February 17 at the age of 52.

Franz F. Lyon, M.D. of Patchogue, died February 16. Dr. Lyon came to this country ten years ago from Germany. He had studied medicine in the Universities of Berlin, Munich, and Freiburg. He was born fifty-seven years ago in Saarbrücken, Germany.

Thomas F. McDermott, M.D., orthopedic surgeon on the staff of St. Vincent's Hospital, New York City, died February 11. He was born in Brooklyn, and was graduated from the Medical College of Virginia (1924).

T. Richard Paganelli, ophthalmologist and former professor of eye surgery at New York College of Medicine and Flower-Fifth Avenue, died February 19 at his home in New York City. He was graduated from the College of Physicians and Surgeons of the University of Maryland in 1903. He was founder of the New Jersey Academy of Medicine and a fellow of the American Medical Association and the American College of Surgeons. He was consulting surgeon at St. Clare's Hospital and at Downtown Hospital in New York, and the author of several medical and surgical textbooks.

Daniel E. Pugh, M.D., of Utica, died January 11, at the age of 58, as a result of traumatic cerebral hemorrhage due to brain injuries received in a motor accident. Widely known in Central New York, he had been active in both the Utica Academy of Medicine and the Oneida County Medical Society, having at one time been secretary of the latter. He was a member of the staff of St. Luke's Hospital, official examiner for the Veterans Bureau, medical examiner of the Utica area for the New York Life Insurance Company, and deputy health officer of the City of Utica. He was graduated from the Medical Department of the University of Michigan, and was in general practice in Utica until 1917 when he was commissioned in the Medical Corps of the Army, serving overseas until 1919.

Julius Raab, M.D., of New York City, dermatologist and medical director of the Home and Hospital of the Daughters of Israel, died February 7 in the Hospital for Joint Diseases. He was born in New York but was graduated from the University of Vienna Medical School and practiced in Vienna until returning to this country nineteen years ago. He was attending dermatologist at Beekman Hospital and associate dermatologist at the Hospital for Joint Disease.

Mark J. Schoenberg, M.D., of New York City, prominent ophthalmologist, died February 15, 1945, at the age of 70. Born in Romania, he was graduated from the University of Bucharest in 1898 and came to the United States in 1900. He served as an attending physician at the Manhattan Eye, Ear, Nose and Throat Hospital, and the Herman Knapp Memorial Hospital, and as consulting ophthalmologist at the Presbyterian and Bronx Hospitals. He founded the New York Society for Clinical Ophthalmology and was chairman of the Committee on Glaucoma of the National Society for the Prevention of Blindness. Numerous contributions to the literature emanated from his pen, particularly on glaucoma, and he received the Lucien Howe Medal from the State Society for his essay on optic atrophy.

WARTIME BY-PRODUCT

It is obvious that industry is going to have tuberculosis as a by-product. The Army has and will have tuberculosis as a by-product, and the civilian population is going to continue to feel the impact of both. This may severely tax bed facilities, for there is no bed surplus anywhere if we really use the beds the way they should be used.—*Harry S. Mustard, M.D., 1943 Transactions, Nat. Tuber. Assn.*

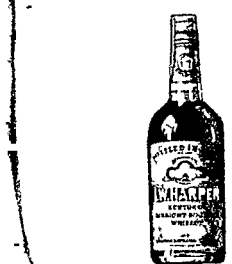
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Hospital News

Improvements

THE Oneida National Bank & Trust Company established complete banking facilities at Rhoads General Hospital on January 22, continuing for the duration.

The plan was announced on January 20 by Charles W. Hall, president.

He said the bank had been asked by the Treasury Department to provide the service and the request had been accepted. With the cooperation of Col. A. J. Canning, commanding officer, suitable quarters next to the post office, in the heart of the federal layout, have been provided.

Francis R. Ealy, teller at the main office of the bank, who has been associated for twenty-three years there, will be in general charge and will be assisted by another bank employee.*

At the Helm

Directors of the Chenango Memorial Hospital, Inc., at their annual meeting at the hospital, re-elected Cyrus M. Higley president, it was announced. Directors named for three-year terms include: Leroy B. Copley, D. M. Copley, Fred H. O'Hara, William H. Dunne, Judge Hubert L. Brown, John N. Benedict, Jesse L. Millspaugh, and J. L. Miller.

In their organization, officers named by the directors in addition to President Higley are: Gilbert R. Lyon, first vice-president; Carl E. Fribley, second vice-president; L. Forrest Hotchkin, treasurer; and William A. Seely, secretary.

• • • •

Walter N. Brand has been elected president of the board of trustees of Tompkins County Memorial Hospital to succeed Joseph S. Barr.

Re-elected were Fred A. Rogalsky, vice-president, Marion R. Hulse, secretary, and Paul Bradford, treasurer.

The new president is vice-president and works manager of Allen-Wales Adding Machine Corp.

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At the annual meeting of the members of the Hudson City Hospital on January 23 Mrs. Margaret Ferris and William H. Graves, of Hudson, and Albert Bristol, of Copake, were elected trustees. The former two were chosen to succeed themselves on the Board.*

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Capt. John T. Bennett, MC, USN, assumed his new duties as medical officer in command of the U.S. Naval Hospital at Sampson on January 27, succeeding Capt. Claude W. Carr, MC, USN, who was detached this week to become medical officer for the Ninth Naval District.

Capt. Carr, who came to this center in July, 1942, took charge of a hospital which then was scarcely beyond the blueprint stage. The facility was commissioned February 27, 1943, and during the captain's tenure was developed into a plant valued at more than $6,000,000, with 474 acres of ground. During the last year alone, more than 13,000 patients were admitted.*

• • •

Mayor Antonio G. Waldo, of Canastota, has announced the resignation of Dr. H. G. Germer as a member of the municipal hospital board and the appointment by the mayor of Angelo Patane as successor.

Dr. Germer, who has served on the hospital board several years, has been confined to his home this winter by illness and resigns the post in his inability to actively serve. In accepting his resignation Mayor Waldo by letter conveyed to Dr. Germer congratulations in the service he has rendered the community on the hospital board.*

• • •

Dr. Charles A. Brind, Jr., was elected president of the Associated Hospital Service of the Capital District at the annual board of directors meeting early in February.

The following officers and members of the executive committee were elected for a one-year term: James A. Glavin, Ray Palmer Baker, Miss Mary G. McPherson, and William N. Bissell, vice-presidents; Edward S. Poole, secretary; Andrew B. Davison, treasurer; and Dr. R. S. Cunningham, Rev. John G. Hart, and Clifford C. Shore.

Re-elected to the board of directors for three-year terms were Henry B. Barnet, Mr. Bissell, Arthur J. Burch, Lorne A. Davidson, Lewis R. Parker, Mr. Poole, James C. Ryan, Alfred Renshaw, and Harold S. Turner. Mr. Shore, president of the Association of State Civil Service Employes of the State, was elected a three-year board member.*

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At the annual meeting of the Fox Memorial Hospital directors at Oneonta the following officers were elected for the year 1945: president, Edward Crippen; vice-presidents, Dr. M. L. Ford, O. B. Rowe, and Lewis F. Rose; secretary and treasurer, Robert Hall; and superintendent, Mrs. Genevieve N. Lechevet.

Directors elected for a term of three years were: Orlando B. Rowe, Mr. Crippen, Owen C. Becker, Morris L. Pincus, and Robert Hall. Damon L. Getman was elected a director a few months ago to fill the unexpired term of his brother, the late Herbert C. Getman.*

• • •

At the annual meeting of the Board of Directors of Potsdam Hospital the yearly reports were given and the purchase of new equipment discussed, when it can be purchased. Morton Bennett, superintendent of the hospital, also discussed subjects relative to the operation of the hospital.

Members of the board include: Clarence E.

[Continued on page 662]

* Asterisk indicates that item is from a local newspaper.

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[Continued from page 660]

Premo, president; Attorney Frank L. Cubley, secretary; F. R. Woodruff, Walter C. Sisson, Mrs. Howard G. Craig, William J. Benjamin, and E. E. Wright, of Norwood. Frank O. Tornberg is treasurer.*

• • •

The annual meeting of the Stephen B. VanDuzee Hospital Association and of the board of directors of the institution was held at the Municipal Building on February 5.

At the Association meeting Vice-President A. E. Boughner presided in the absence of President J. O. Sheldon. Five new directors to serve five-year terms through 1950 were chosen: Miss Kate Leahy, Mrs. Berta Sprague, Miss Adelaide Johnson, and A. K. Laidlaw and John J. Wallace.

Upon adjournment of the Association meeting the board of directors convened at 8:45 P.M. with sixteen in attendance.

Officers were re-elected as follows: J. O. Sheldon, president; A. E. Boughner, first vice-president; B. O. Kinney, second vice-president; A. K. Laidlaw, treasurer; W. B. Simons, secretary.

These officials, by virtue of their offices, are automatically members of the hospital executive committee. To the list three others were added to complete the membership of the committee: Mrs. Berta Sprague, Mrs. B. G. Parker, and Mrs. M. E. Loveland.*

• • •

Harrison B. Wright is starting his third term as president of the South Nassau Communities Hospital, following his re-election at the annual meeting held in Hempstead on January 22.

Elected vice-presidents were Dr. Arthur B. Jacques, East Rockaway; Charles DeLap, Roosevelt; W. Sargeant Nixon, Freeport; John H. Carey, Valley Stream; John M. Fraser, Rockville Centre; George H. Jackson, Lynbrook; Mrs. May V. Walsh, Baldwin; and Frank W. Donnelly, East Rockaway.

Elected directors for three-year terms were Mrs. Earl D. Bennett, John H. Glass, Louis A. Abrams, and Irene M. Gaskell of Rockville Centre; Hugo Platte, Malverne; Miss Hattie Miller and Kathryn H. Carey, Valley Stream; Charles DeLap, Roosevelt; Lyman W. Davison and Dr. Jaques, East Rockaway; William A. Kielman, Lynbrook; Mrs. Henry Sutter and Agnes Earon, Freeport; and two new directors, George Morton Levy and Judge Hilbert R. Johnson, of Freeport.*

Newsy Notes

A fitting tribute was paid to Dr. Walter Lindsay, who practiced in Huntington from 1866 to 1926 in a reminiscent talk by Dr. Burdge P. MacLean. The occasion was the regular monthly medical meeting of the Huntington Hospital Medical Staff.

Dr. Lindsay was one of that vanished type—the horse and buggy doctor. He was also the first doctor in Huntington to own a high-wheeled buggy-type Duryea auto.

A dinner was tendered him in 1916 on the anniversary of his fiftieth year in the active practice of medicine. This was attended by fourteen physicians, among whom were Dr. H. G. Carter, Dr. L. P. G. Gouley, Dr. L. T. Jackman, Dr. B. P. MacLean, and Dr. W. C. Travis.

The program of this dinner together with a picture and biographical epitome of Dr. Lindsay was framed and presented by Dr. M. R. Keen to Huntington Hospital before this meeting.*

• • •

Asserting that there is no hospital within forty miles of Buffalo to take care of returning Erie County veterans, Rep. Edward J. Elsaesser, Buffalo Republican, has launched a drive for the construction of a veterans hospital in Buffalo as soon as possible.

At least 70,000 men and women of Erie County are serving the nation, Elsaesser asserted in a letter to Brig. Gen. Frank T. Hines, administrator of veteran affairs. Not a single hospital in Erie County has been established to care for the county's veterans, the congressman added, and the nearest one at Batavia may "soon be inadequate to care for current needs."*

• • •

According to the latest plans for the proposed enlargement of the hospital at Castle Point, one large main building rising six stories above the ground floor is called for, instead of two three-story wings east and west of the present central administration building and its Wards D and E Wings. The proposed new structure will be a conspicuous landmark as seen from the Hudson. It will be one of the largest and most imposing buildings to be found along the course of the river.

The building will provide four hundred additional beds in four large wards, making Castle Point at least a one thousand, two hundred bed hospital.

• • •

Dr. John E. White, of Malone, who was recently discharged from the Army Medical Corps after serving as a major in the United States, Australia, and New Guinea, in an informal chat with women of the Hospital Club at their meeting on January 9 talked of "How We Run an Army Hospital."*

• • •

Plans for a modern hospital to service lower Manhattan are being formulated by the board of directors of Beekman Hospital, it was revealed by Hospital President Howard S. Cullman. Mr. Cullman made his announcement following the twenty-third annual meeting of the board on January 9.

Recommendations that Beekman Hospital be more centrally located and with more modern facilities were made early last year by the hospital council, which reviewed the hospitalization needs of lower Manhattan, Mr. Cullman said in his annual report. Present plans call for a 150-bed hospital, which would cover the needs of the district.*

• • •

With collections gradually gaining momentum, the Patchogue Kiwanis Club reported on January 12 that its drive for funds for a mobile portable x-ray

[Continued on page 664]

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Woman's Auxiliary

To the Medical Society of the State of New York

Winter Board Meeting

A VERY well-attended meeting of the Executive Board of the Woman's Auxiliary to the Medical Society of the State of New York was held in the Hotel Pennsylvania in New York City, January 24 and 25.

Two inspiring and very constructive talks were given by Dr. Nathan B. Van Etten and Mr. Dwight Anderson. Miss Yolande Lyon explained posters and literature to be used at lectures on medical indemnity insurance.

County News

Albany County. Two monthly luncheon meetings were held. The December meeting was held in the Crystal Room of the De Witt Clinton Hotel with Mrs. James Bucci presiding. Mrs. Betty Wertz, the state president, was to have addressed the meeting, but was snow-bound and unable to be present. Mrs. Thomas Bullard, president of the Saratoga Auxiliary and a member of the state board of directors, was present and gave a very interesting talk on "Fifty Years a Country Doctor's Wife."

The meeting was attended by the following state legislative chairmen: Mrs. A. Madden; organization, Mrs. Hugh Henry; printing and supplies, Mrs. J. Rainey; public relations, Mrs. B. Shults. Two county presidents also present were Mrs. A. Congdon, of Schenectady, and Mrs. J. Rensselaer. Among the honored guests were Dr. John B. Horner, president of the Albany County Medical Society, and Dr. A. W. Wallingford, vice-president. These persons formed the receiving line. The beautifully appointed tables, gay in their Christmas colors and candles, were arranged by Mrs. Hugh Leahy and her committee. Mrs. Raymond Kircher, assisted by Mrs. Francis A. Stephens and Mrs. A. J. Sullivan, was in charge of the luncheon.

The January luncheon was held at the University Club and Mrs. Bucci, the president, presided. The speaker of the day was the National Director of the Woman's Auxiliary to the American Medical Society, Mrs. Luther Kice, of Garden City, Long Island. She spoke on pending federal legislation and gave a brief summary of Senator Pepper's first report on "Health and Education." She advised the women present to be on the look-out for Senator Pepper's second report in the near future. She also told of the new bill on socialization of medicine introduced by Senator Dingell. A lively discussion followed the talk and was followed by the business meeting under the leadership of the vice-president, because Mrs. Kice, Mrs. Bucci, and Mrs. Madden, state legislative chairman, had to leave to attend the State Board Meeting in New York that evening.

Erie County. A very interesting meeting of the Legislative Committee of the Woman's Auxiliary to the Medical Society of the County of Erie was held at the home of the chairman, Mrs. Benjamin Smallen, Tuesday, February 6. At this meeting it was learned that over two hundred wires had been sent the day before to Albany opposing the Chiropractic Bill.

The Red Cross knitting group was entertained at luncheon Thursday, February 15, at the home of Mrs. Jesse G. Levy. Her cochairman was Mrs. Fred St. John Hoffman. Another afghan has been presented to the American Red Cross which was knitted by this group.

The next Auxiliary meeting was held Tuesday, February 27, when the American Women's Voluntary Service, Inc., gave a "Remake Clothes Revue" and Clothing Conservation Program. The usual round-table luncheon was served and there was a valuable door prize.

Nassau County. The regular meeting of the Woman's Auxiliary to the Nassau County Medical Society was held on Tuesday evening, February 27, at 8:30 P.M. at the Nassau Hospital Auditorium in Mineola.

The speaker was Mr. Stanley B. Pinks, who gave a demonstration of his "Seeing Eye" guide dog. Friends of members were cordially invited.

Refreshments were served by Mrs. John L. Neubert and her committee.

Oneida County. The Woman's Auxiliary to the Medical Society of the County of Oneida had a dinner meeting at 6:30 P.M., Tuesday, January 9, in the Seneca Room of the Hotel Utica with Mrs. Bradford Golly, of Rome, presiding. Thirty members braved a severe snowstorm to attend. After a brief business meeting Miss Augusta Mueller, R.N., of Rome, told of her interesting experiences during her four years' sojourn in Alaska, and displayed many pieces of native clothing. It was voted to buy a War Bond.

The next meeting will be held in April in Rome.

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A program featuring South America was presented. Mrs. H. D. Hunt sang several native songs, and Miss Alice F. Warren, of the Skidmore College faculty, gave a stirring address on the need of a good neighborly policy toward South America.

The retiring president, Mrs. Thomas Bullard, presided and announced the purchase of one of the health certificates of the Saratoga County Tuberculosis Committee. The hostesses for the meeting were Mrs. W. S. McClellan, Mrs. R. Bullard, Mrs. R. G. Loop, and Mrs. J. M. Lebowich.

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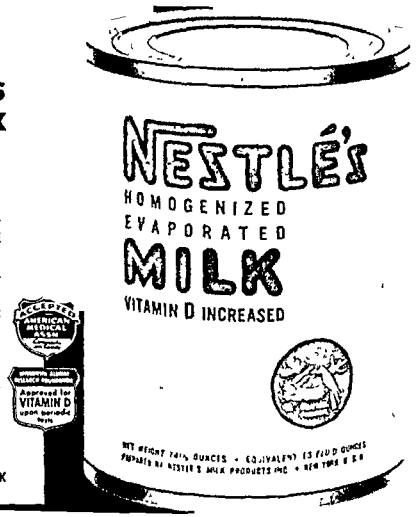
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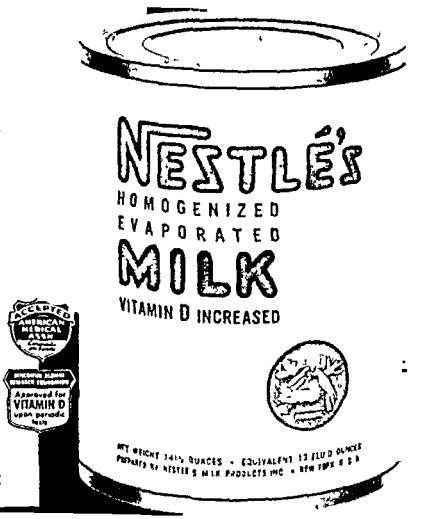
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Books

Books for review should be sent to the Book Review Department at 1313 Bedford Avenue, Brooklyn, N. Y. Acknowledgment of receipt will be made in these columns and deemed sufficient notification. Selection for review will be based on merit and interest to our readers.

RECEIVED

Textbook of Medical Treatment. By various authors. Edited by D. M. Dunlop, M.D., L. S. P. Davidson, M.D., and J. W. McNee, M.D. Third edition. Baltimore, Williams & Wilkins Co., 1944.

Medical Diseases of War. By Lt. Col. Sir Arthur Hurst, late R.A.M.C., with the cooperation of seven authors. Fourth edition. Octavo of 511 pages, illustrated. Baltimore, Williams & Wilkins Co., 1944. Cloth, $6.00.

Practical Anaesthetics. For Students, Hospital Residents and Practitioners. By J. Ross MacKenzie, M.D. Octavo of 136 pages, illustrated. Baltimore, Williams & Wilkins Co., 1944. Cloth, $3.00.

Penicillin in Warfare. (Forms: Supplement to Vol. 32, No. 125, *British Journal of Surgery*, July, 1944.) Quarto of 224 pages, illustrated. Bristol, John Wright & Sons (Baltimore, Williams & Wilkins Co.) Paper, $2.50.

Personal Mental Hygiene. By Dom Thomas Verner Moore, M.D. Octavo of 331 pages, illustrated. New York, Grune & Stratton, 1944. Cloth, $4.00.

The Pathology of Internal Diseases. By William Boyd, M.D. Fourth edition, revised. Octavo of 857 pages, illustrated. Philadelphia, Lea & Febiger, 1944. Cloth, $10.

American Medical Practice. In the Perspectives of a Century. By Bernhard J. Stern, Ph.D. Octavo of 156 pages. New York, The Commonwealth Fund, 1945. Cloth, $1.50.

Life Overflows. An Original Scrapbook Arrangement of Soothing Philosophical Thoughts. By Carl Leonard Thenebe, M.D. Octavo of 116 pages. Boston, Bruce Humphries, Inc., 1944. Board, $2.50.

Manual of Clinical Mycology. Prepared Under the Auspices of the Division of Medical Sciences of the National Research Council. By Norman F. Conant, Ph.D., Donald Stover Martin, M.D., David Tillerson Smith, M.D., Roger Denio Baker, M.D., and Jasper Lamar Callaway, M.D. Duodecimo of 348 pages, illustrated. Philadelphia, W. B. Saunders Co., 1944. Cloth, $3.50.

The Story of a Hospital. The Neurological Institute of New York. 1909–1938. By Charles A. Elsberg, M. D. Duodecimo of 174 pages, illustrated. New York, Paul B. Hoeber, Inc., 1944. Cloth, $3.50.

Medical Uses of Soap. A Symposium. Edited by Morris Fishbein, M.D. Octavo of 182 pages, illustrated. Philadelphia, J. B. Lippincott Co., 1945. Cloth, $3.00.

The Etiology, Diagnosis, and Treatment of Amebiasis. By Col. Charles Franklin Craig, U.S.A., Ret., D.S.M. Octavo of 332 pages, illustrated. Baltimore, Williams & Wilkins Co., 1944. Cloth, $4.50.

The Surgeon's Hands and Other Poems. By Ida Norton Munson. Octavo of 79 pages. Boston, Bruce Humphries, Inc., 1944. Cloth, $2.00.

Patients Have Families. By Henry B. Richardson, M.D. Octavo of 408 pages. New York, The Commonwealth Fund, 1945. Cloth, $3.00.

Surgery of Modern Warfare. Edited by Hamilton Bailey, F.R.C.S. Subeditor for Medicine, C. Allan Birch, M.D. Compiled by seventy-seven contributors. Vols. I & II, third edition. Octavo of 1108 pages, illustrated. Baltimore, Williams & Wilkins Co., 1944. Cloth, $20 per set.

The Avitaminoses. By Walter H. Eddy, Ph.D., and Gilbert Dalldorf, M.D. Third edition. Octavo of 438 pages, illustrated. Baltimore, Williams & Wilkins Co., 1944. Cloth, $4.50.

Health and Medical Care:—Niagara County, N. Y. Study made by the New York State Health Preparedness Commission in cooperation with the Local Health Preparedness Committees in Niagara County. Quarto of 84 pages. [The Commission, 1944.]

REVIEWED

Cataract and Anomalies of the Lens. By John G. Bellows, M.D. Octavo of 624 pages, illustrated, including four color plates. St. Louis, C. V. Mosby Co., 1944. Cloth, $12.

The author is one of Sanford Gifford's corps of instructors at the Northwestern University Medical School. He has given us the first modern work on the lens including the anomalies and embryology. The literature is catalogued and complete.

We predict that this will be the first of many editions. It is highly recommended.

RALPH I. LLOYD

Tropical Nursing. A Handbook for Nurses and Others Going Abroad. By A. L. Gregg, M.D. Second edition. Sextodecimo of 185 pages, illustrated. New York, Philosophical Library, Inc., 1944. Cloth, $3.00.

The subtitle is an excellent index to the nature and the scope of this book. The exotic diseases common to the tropics are briefly described with respect to cause, transmission, effect upon the patient, diagnosis, and treatment. The principles of nursing management for each disease entity are set forth. In addition to items of practical importance which constantly appear in the running text, there are twenty-two pages devoted to technic and procedure, and there is also a brief section on personal hygiene in the tropics. There is a short

[Continued on page 670]

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Both 86.8 Proof

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New York, N. Y.
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BUY UNITED STATES WAR BONDS AND STAMPS

[Continued from page 668]

glossary of terms for the benefit of those without medical vocabulary. There are few illustrations.

E. J. TIFFANY

The 1943 Year Book of Industrial and Orthopedic Surgery. Edited by Charles F. Painter, M.D. Duodecimo of 440 pages, illustrated. Chicago, Year Book Publishers, Inc., 1943. Cloth, $3.00.

The 1943 Year Book of Industrial and Orthopedic Surgery is an excellent addition to the previous published volumes on the subject. The important recent advances in orthopedic surgery for the year are carefully selected from the extensive literature and clearly described, edited, and amply illustrated. There is an excellent chapter on fractures and traumatic dislocations, with clear descriptions of the newer methods of treatment of various traumatic bone lesions. The chapter on operative technic brings the various new operative procedures up to date in concise form. That part of the book devoted to industrial medicine and surgery should be of interest to the industrial physician.

The book is a real asset to the orthopedist who has not sufficient time to delve into the voluminous current literature of the specialty.

L. G. PAPAE

Lippincott's Quick Reference Book for Medicine and Surgery. A Clinical, Diagnostic and Therapeutic Digest of General Medicine, Surgery, and the Specialties, Compiled Systematically from Modern Literature. By George E. Rehberger, M.D. Twelfth edition. Octavo of 1,460 pages, illustrated. Philadelphia, J. B. Lippincott Co., 1944. Cloth, $15.

The publication of a twelfth edition (since the first in 1920) of this large reference book is testimony to its popularity. The present edition has been revised according to the latest U.S.P. and National Formulary and has been extensively rewritten.

The chief value of a book of this type is that it provides access to information in many specialties. The articles are sketchy, but here a dermatologist may look up a point in orthopedics or otology. The information he will find will not be encyclopedic but may save him a trip to the library.

The illustrations are good. The printing is excellent. There is a good index and most of the material is up-to-date and conforms to the best modern practice.

M. PLOTZ

Vascular Responses in the Extremities of Man in Health and Disease. By David I. Abramson, M.D. Octavo of 412 pages, illustrated. Chicago, University of Chicago Press, 1944. Cloth, $5.00.

This volume is essentially a summary of plethysmographic investigations which the author has conducted on the peripheral circulation.

The book opens with an excellent review of the anatomy, histology, and nervous control of the blood vessels. Then follows a summary and evaluation of all known methods for studying peripheral circulation. After revealing that practicallyall methods possess certain defects and disadvantages for obtaining an accurate estimate of peripheral blood flow, the author describes the plethysmograph and shows it to be the best quantitative method for measuring the rate of the peripheral circulation. Although this method, too, possesses many pitfalls and lends itself to the creation of artefacts which can be easily misinterpreted, the author nevertheless devotes the remainder of the book to a discussion of the responses of the peripheral circulation to such variables as heat, anoxia, drugs, hormones, and mechanical influences.

At best, plethysmography is only an indirect physiologic method for studying blood flow. To draw blood conclusions on both physiologic and clinical laws concerned with the circulation in the limbs from a single method which in itself is certainly not absolute, appears to be too hazardous. The book is well written and should prove stimulating to anyone interested in the subject.

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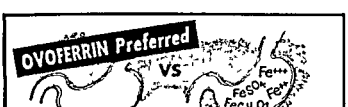
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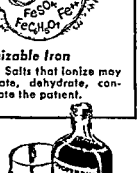
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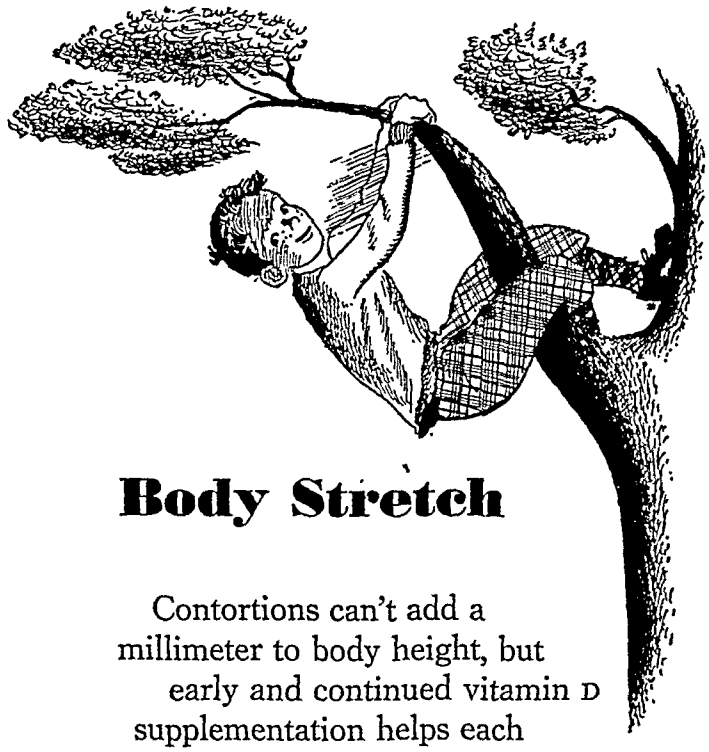


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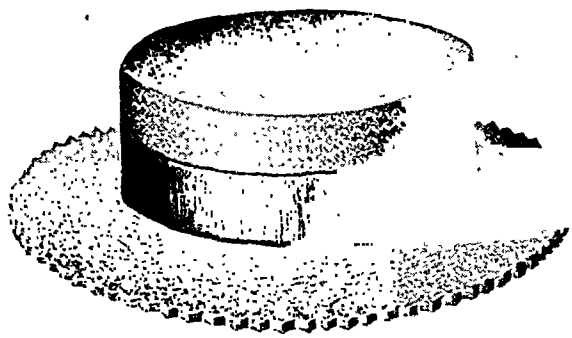
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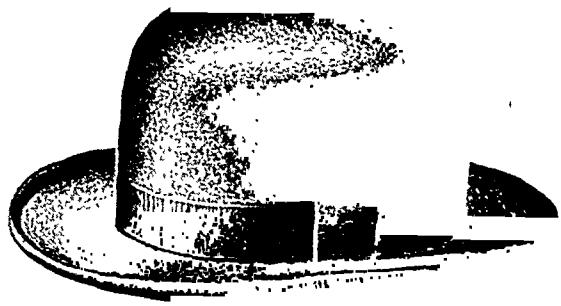
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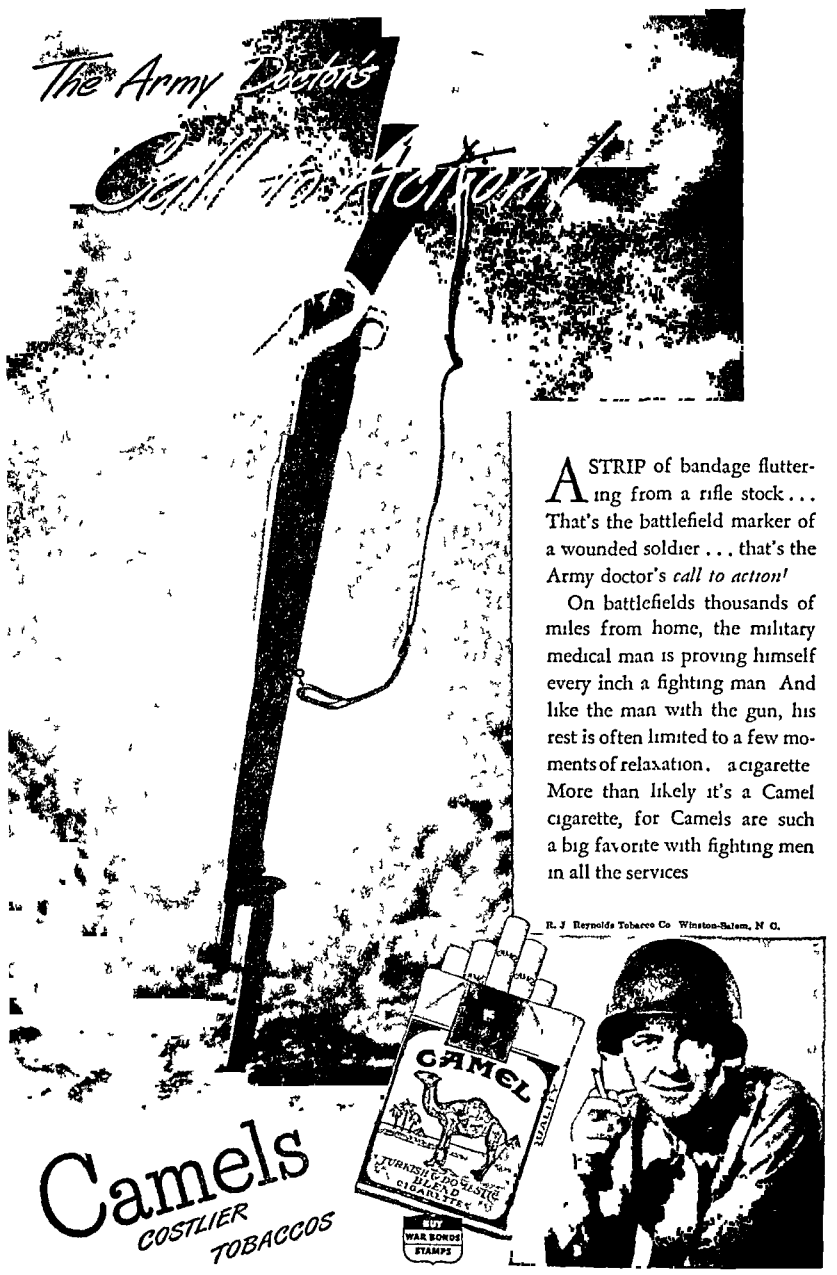
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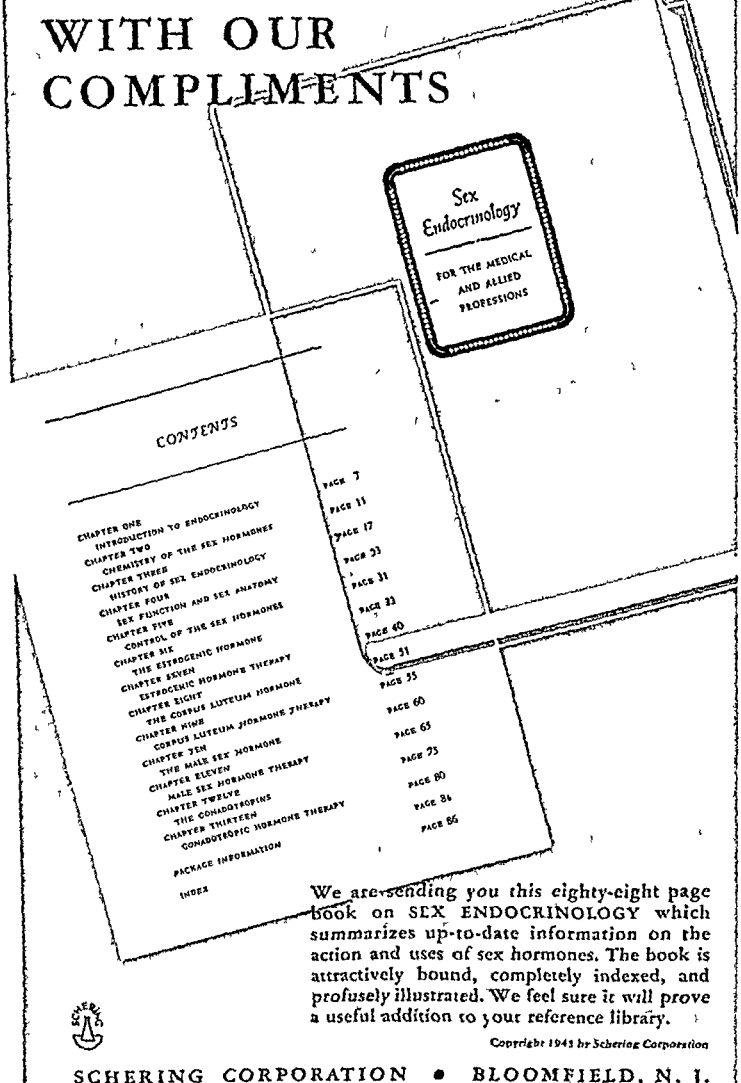
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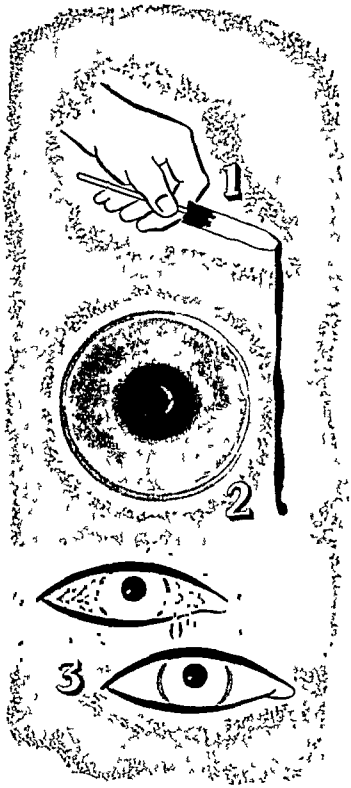
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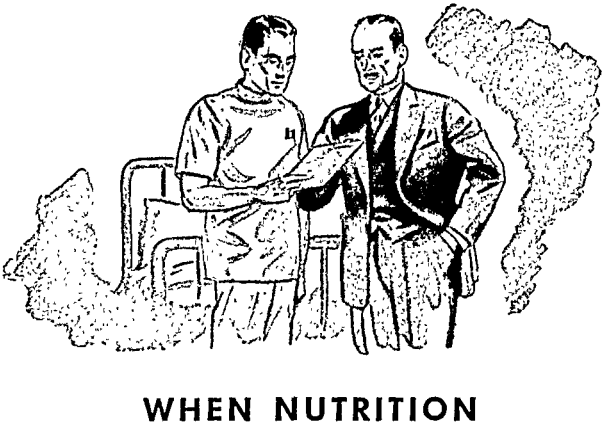
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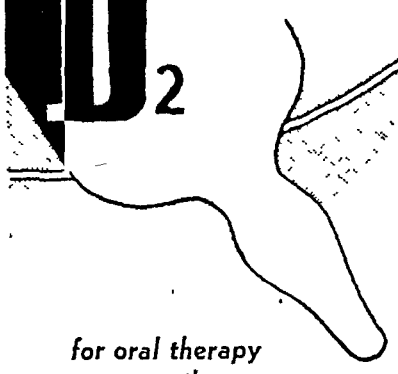
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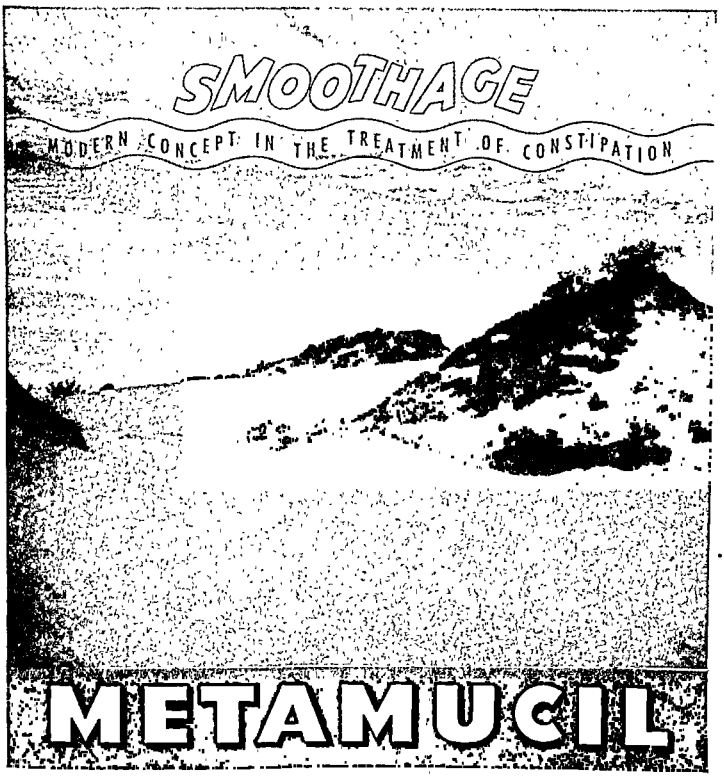
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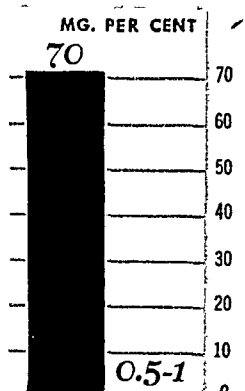
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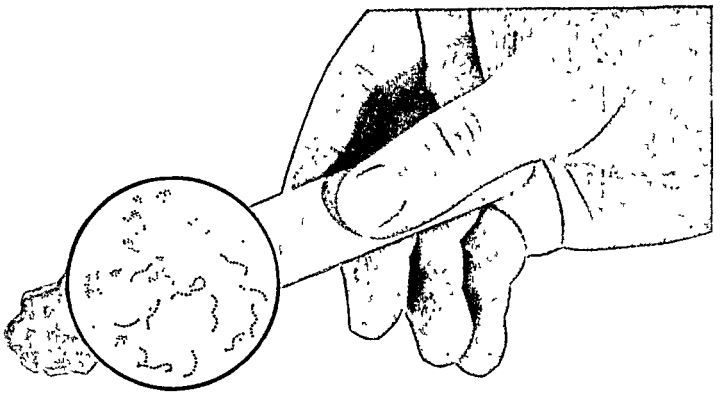
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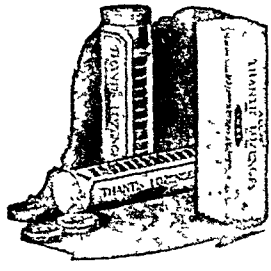
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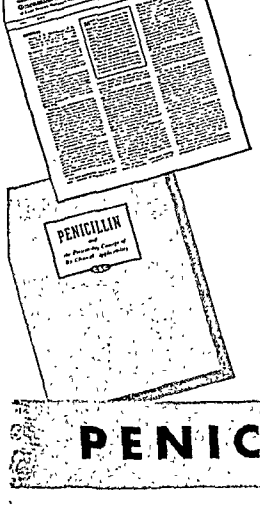
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*Collins, B. C.: Subacute Bacterial Endocarditis Treated with Penicillin, J.A.M.A. 126:233 (Sept. 23) 1944.

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REFERENCES — 1 West. J. Surg. & Gyn., 51:150, April, 1943. 2 Clin. Med. & Surg., 46:327, August, 1939. 3 Med. Rec., 155: 316, 1942. 4 Crossen, H.S. and R. J.: Diseases of Women, C.V. Mosby Co., St. Louis, 9th ed., 1941.

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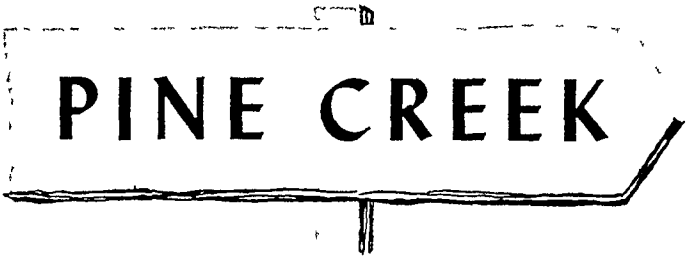
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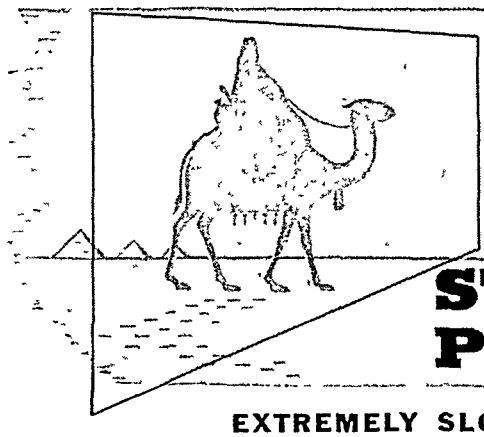
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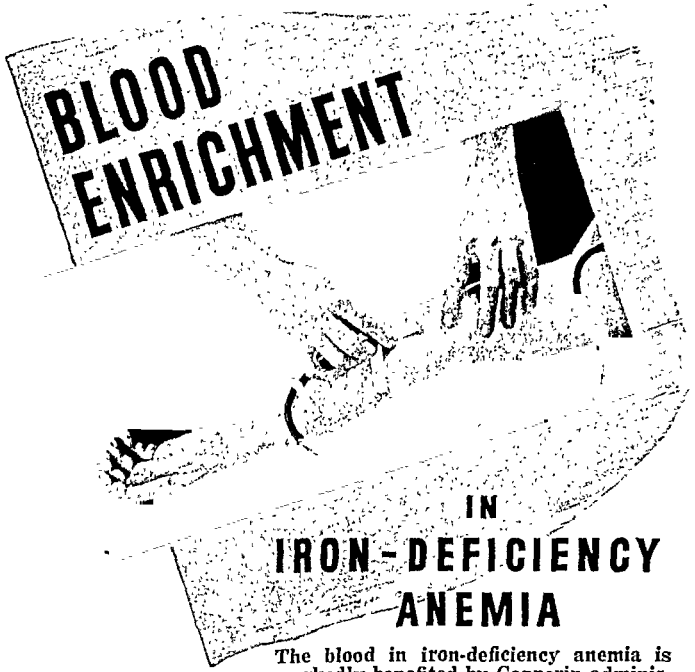
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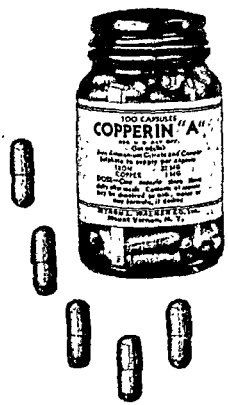




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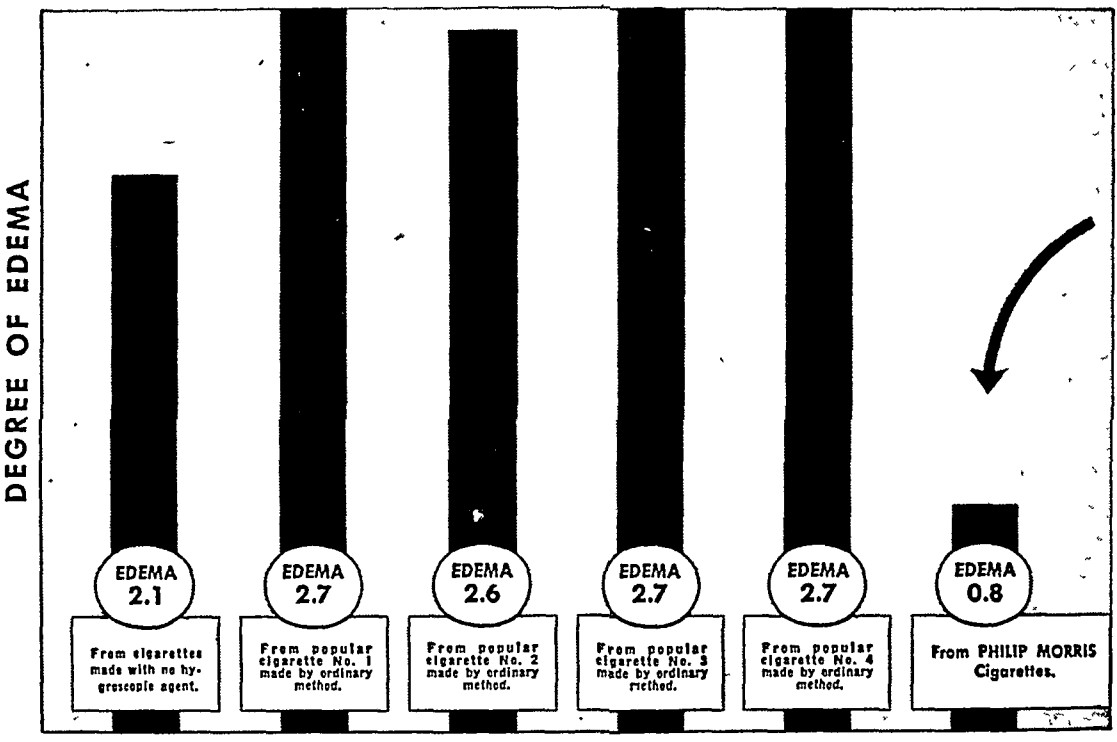
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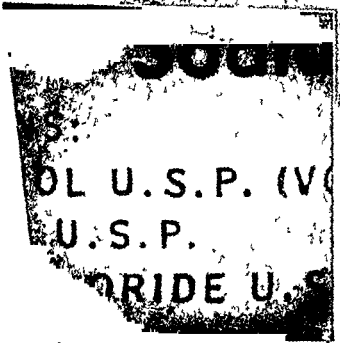
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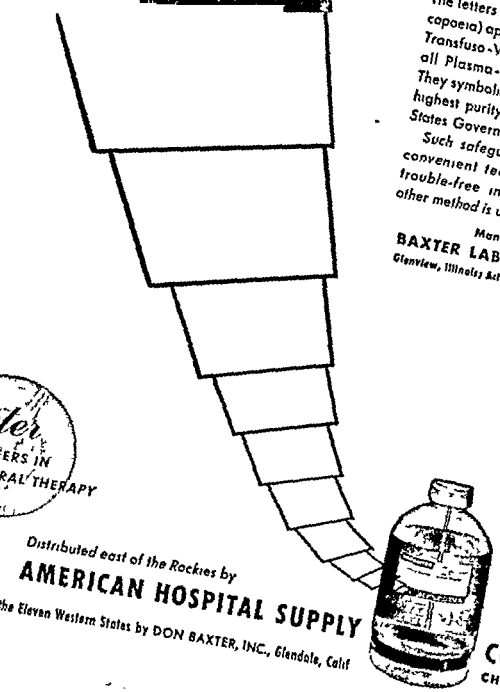


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Myerson, A.—*Anhedonia*—
Am. J. Psychiat., July, 1922.

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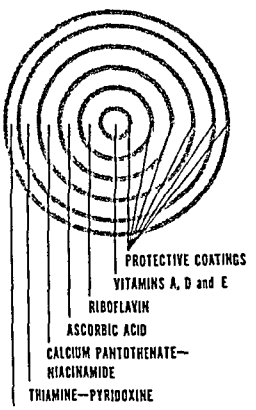
*Ivy, A. C., et al.: "The Effect of Various Bile Acids on the Volume and Certain Constituents of Bile." Am. J. Digest. Dis., 7:333 (1940).

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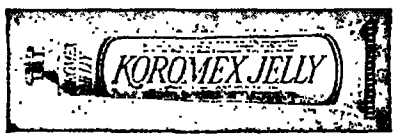
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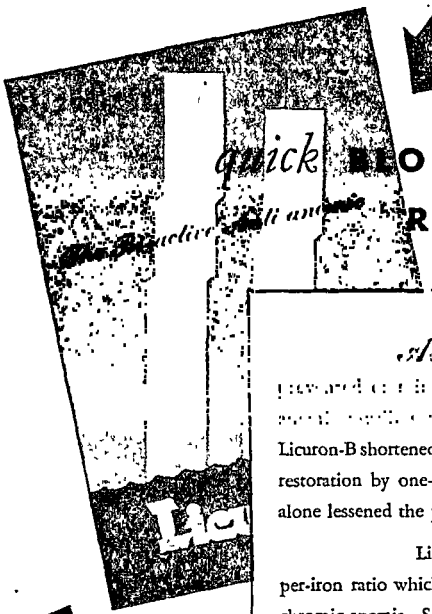
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VOLUME 45 APRIL 1, 1945 NUMBER 7

Editorial

Virus Diseases, I

We do not know what a virus is or where it belongs in the classification of living things. The story has just begun, but the opening chapters prove that the discovery of viruses equals in importance the discovery of bacteria as the cause of disease. Already several hundred viruses have been identified and they are known to be capable of infesting almost every living thing from plants to insects, amphibians, birds, mammals, and even bacteria. They are the cause of some of the most important diseases of man, including smallpox, yellow fever, rabies, encephalitis, poliomyelitis, virus pneumonia, measles, and influenza. Is it any wonder that they are being studied in every laboratory dealing with microbiology?

Early investigators in the field of bacteriology discovered that by passing suspensions of bacteria through a porcelain filter a filtrate was obtained which contained no visible or culturable organisms. The first discovery that such a bacteria-free filtrate could cause disease came in 1892 when Iwanosky, using an apparently sterile filtrate of the mosaic disease of tobacco plants, reproduced the disease. The first disease of animals to be transmitted by a filtrate was foot and mouth disease in 1898. At that time the obvious explanation was to be found in the conception of ultramicroscopic bacteria small enough to pass through the pores of the filter. The discovery of bacteriophages in 1920 and studies of their effects led to a radical change of opinion and stimulated research into the nature of other filterable viruses.

This research was made exceedingly difficult by the fact that all attempts to grow viruses on bacterial culture media were unsuccessful. We now know that this was due to a fundamental difference between bacteria and viruses. The latter are obligate intracellular parasites. They can grow only on living tissues, and they die when their host ceases to live. Also, their invisibility prevented any determination of their size by direct measurement.

As early as 1920, viruses were successfully grown in tissue cultures of embryonal

This is the first of two editorials on the virus diseases. The second will appear in a subsequent issue.—*Editor*

cells. In 1931, Woodruff and Goodpasture reported the successful use of fertilized hens' eggs in growing the virus of fowl-pox. When they later reported that the virus used in making smallpox vaccine could be grown in the same way, the importance of the discovery became evident. A single egg could produce enough vaccine to immunize a thousand people. Furthermore, viruses were for the first time made available in quantities necessary for further investigation.

Scientists engaged in research on yellow fever had been growing minute amounts of virus on the brains of mice, a costly and laborious process. By using hens' eggs they were able to grow the virus on a mass-production basis. It was this that has made it possible to vaccinate our soldiers against one of the deadliest of tropical diseases. Many thousands of them have been sent to the worst yellow-fever regions in Africa without contracting the disease. The bite of an infected mosquito is no longer necessarily a deadly menace.

In like manner the development and compulsory use of preventive inoculations have completely protected our soldiers against typhus fever. In every previous war in Europe this disease has occurred in widespread epidemics and has taken a heavy toll in sickness and death. Encouraging reports come from laboratories where the virus of influenza is being studied. A vaccine has been developed in Australia which may prove to be a godsend if we have another world-wide epidemic as we did in 1918. Without undue optimism we may hope for the early conquest of poliomyelitis by immunologic therapy.

It is a strange fact that while more and more bacterial diseases are being cured by antitoxins, chemotherapy, and antibiotics, no specific cure has ever been found for any virus disease, and only recently has a small group of viruses been found that is sensitive to the sulfonamides. It is significant that the members of this group most nearly approach the bacteria in size and probably in other characteristics. They are large enough to be seen with an ordinary microscope; they are the cause of trachoma, lymphogranuloma, and swimming-pool conjunctivitis.

It seems probable that the viruses are protected against the curative action of antitoxins and immune serums by reason of their intracellular habitat. Substances which confer immunity can destroy them before they reach sanctuary inside the cells of the host, but cannot cure the disease after the viruses have escaped from the serum to the cells.

The difficult problem of how to measure invisible bodies was overcome by the use of collodion filters with pores of known and varying sizes. The results corresponded with those of an entirely different method, high-speed centrifugation. More recently the results of both methods have been checked by direct observation with the electron microscope. They show a tremendous difference in the size of the virus bodies in different diseases although the particles of each species are fairly uniform in size. Biochemical research reveals a simplification of structure in inverse ratio to size, ranging from a complexity approaching that of bacteria in the larger bodies to the simplicity of a single molecule in the smallest. It seems likely that as we learn more about them their differences will be found greater than their similarities. In fact, the reclassification of virus bodies into groups has already begun.

What About It?

Recently the J.A.M.A. forecast the probability of a reduction of 15,000 civilian physicians by 1948. We wonder how many already overworked practitioners have considered the significance of this forecast.

In cold figures it means that each doctor will have to increase his output by 10 per cent if present standards of medical care are to be maintained. Whether this will be possible for many already overloaded members of the medical profession, especially the older men, is a question.

The question becomes even more important in view of the Army's demand for 16,000 additional trained nurses. The interrelationship between the available supply

of physicians and the available supply of nurses seems to have been somewhat overlooked in the procurement setup. The busy surgeon, who before the war had a trained nurse as an office assistant and now employs a lay person, must do many things himself which could be done by others.

For instance, we are informed by a physician that while he was on "emergency call" at his local hospital he had in the course of one evening served as physician, nurse, orderly, information clerk, telephone operator, and instructor. Had there been an adequate staff of well-trained nurses on hand as well as a sufficient number of operating personnel much of this work would have been done better in less time, and the physician would have been enabled to apply his time entirely to the practice of medicine.

Doubtless this story could be duplicated at the present time in many local hospitals throughout the country. The wastage of physicians' time, if multiplied by the possible instances in which this sort of thing is occurring in local hospitals, is obviously enormous.

Now, if we are to lose 16,000 additional trained nurses, the amount of extraneous work already falling to the lot of the physician will be further increased. In other words, as the trained nurses are withdrawn from civilian hospitals the efficiency of the individual physician and the number of patients the doctor can properly care for is proportionately decreased, and standards of patient care are necessarily lowered.

We do not for one moment advocate any relaxation of nurse procurement for the armed forces to the extent that these are really necessary. We do, however, ask for intelligent evaluation of the situation in civilian hospitals with respect to nursing care. Instead of enacting more class legislation by drafting female nurses, or depending entirely on voluntary nurse enrollment, would it not be intelligent to train male laymen to carry part of the load? Again we call attention to the large number of 4F's. Are they being utilized as fully as they can be? Do not our hospitals furnish an opportunity to make further use of their services?

Medical Officers Needed

The New York State Guard needs medical officers and personnel. At this time the training and preparation of the Guard for the year 1945 with special reference to the medical detachments requires a full complement of medical officers. The field training is becoming each year more rigorous, and the work of the medical detachments during field training more important to the welfare of the officers and enlisted men of the various units.

Owing to the shortage of physicians it has become increasingly difficult to obtain a full quota of medical officers. It is obvious that proper training of medical corpsmen must begin well in advance of the period of field training in order that maximum efficiency of the medical detachment can be attained. In order to accomplish this, we urge those of our membership who can possibly do so to seek commissions in the Guard as medical officers wherever they are needed throughout the State. It is suggested that any physicians interested communicate with the Adjutant of the New York Guard, Maj. Albert Weber, at Guard Headquarters, 80 Centre Street, New York 13, New York. And do not forget that the New York Guard urgently needs six thousand recruits immediately.

A Memorial to Dr. Peter Irving

Dr. Irving, Secretary and General Manager of this Society since 1937, died on December 28, 1944, at Roosevelt Hospital, after a cardiac illness of several months.

His death is a great loss to the Society and a great sorrow to all who have been associated with him in the work of the Society.

It would be impossible to overestimate his value. Not only was he Secretary and General Manager, and as such was conversant with and helpful in everything that was

undertaken by the Society, but also he was Managing Editor of the NEW YORK STATE JOURNAL OF MEDICINE. Under his editorship the Journal steadily improved; and the improvement will continue under new plans already formulated with his help and guidance. He was appointed in 1943 by Governor Dewey as a member of a Commission to investigate the management and affairs of the Department of Mental Hygiene of the State of New York.

Dr. Irving was born in 1878 in Madison, Wisconsin. His preliminary education was in a private preparatory school, St. Austin's, Staten Island. He went to Columbia University and received his A.B. in 1900. In 1903 he graduated from the College of Physicians and Surgeons (Columbia University) and was the winner of the second Harsen Prize.

His internship was in Roosevelt Hospital, where he was graduated as house physician; and he had been on the staff of that hospital continuously, first as clinical assistant, and for many years as chief of the medical dispensary, advancing up through the grades until, finally, before his retirement from active practice, he was attending physician. At the time of his death he was consulting physician to Roosevelt Hospital and also to New York and Seton Hospitals.

He was a member of the Alumni Association of Roosevelt Hospital, a Fellow of the New York Academy of Medicine, a Fellow of the American College of Physicians, and a Diplomate of the American Board of Internal Medicine.

We are inclined to think of Dr. Irving as the full-time Secretary and General Manager of our Society, but before that, for thirty-two years, he practiced medicine in New York County. He had great knowledge and skill in medicine, but he did not call himself an internist or a diagnostician. He was a family physician at its fullest and best. He treated people and not merely diseases. His judgment was sound and very sane. Called in to see one patient for some illness or ailment, he would soon be guiding the whole family in health matters.

Nothing was too much trouble, nothing was too trivial for him to take an interest in. He knew people, and he knew the art of medicine, and he knew that troubles that are of little importance from the doctor's point of view do not seem unimportant to the patient. There are not many family physicians like him left in the larger cities, and medicine and the public are the worse for their lack. His former patients still talk about his wonderful work for them, whether it was a critical illness in which they are convinced that he saved their lives, or a successful regimen of life which has kept them in health. He first took an active part in organized medicine in 1927 when he became a member of the Special Committee on Nursing of the New York County Society. He served on the Economics Committee in 1928 and 1929, was Assistant Secretary from 1930 to 1936. He served on the Board of Censors for one year and then took up his duties with the State Society. We have already spoken of his work with us since 1937, its excellence, his unfailing attention to duty, but it is not so easy to describe what he gave us over and above that.

There was something about his personality, his candor, his friendship, and his keenness of mind that was an inspiration to all who worked with him, that was a solace and a help to all the members of the Society who came to him for help and for advice.

Perhaps his outstanding characteristic was his intense loyalty, loyalty to the Society and loyalty to his friends and associates. We shall never forget him and it will be a long time, if ever, before we see another man like him.

Resolved, by the Council of the Medical Society of the State of New York that this resolution be spread upon its minutes and that a copy be sent to his family.

At the meeting of the Comitia Minora of the Medical Society of the County of Kings and Academy of Medicine of Brooklyn, held January 3, the following resolution was unanimously approved:

> *Resolved*, that the medical profession of the state of New York has lost an invaluable friend and faithful servant in the death of Dr. Peter Irving, late Secretary of the Medical Society of the State of New York. We wish to express to his own family, as well as to the official family of the Medical Society of the State of New York, our deepest sympathy and heartfelt condolence. We mourn our loss.

THE TENDOGENETIC DISEASE AND ITS TREATMENT WITH X-RAYS

J. Borak, M.D., New York City

(From the X-Ray Department of New York University College of Medicine)

THE most frequently occurring example of a tendogenetic disease is the syndrome constituting the so-called "frozen shoulder."

This condition has been considered to be arthritis of the shoulder joint (omarthritis), periarthritis, humeroscapularis, bursitis. However, in the light of the work of Codman[1] it is certain that it is ultimately caused by a process originating in a tendon, most frequently in that of the supraspinate muscle, situated between the acromion, the bursa subacromialis, the deltoid muscle, and the capsule of the shoulder joint. The infraspinate, subscapular, and biceps muscles, too, are often involved. The tendon of the muscle affected is found to be in a state of degeneration and necrosis. Following the modern concept, this is the result of anemia caused not by an occlusion of the blood vessels, but by disproportion of the blood supply and the demand on the blood. Such a condition can easily develop in a tendon because it can readily be overused, while, in strong contrast to the muscles, it has a very poor vascularization. As a consequence, a number of fibers of the tendon become necrotic. The necrotic tissue acts as a foreign body giving rise to a peritendinitis in the surrounding sheath, which in turn may spread to the walls of the bursa subacromialis, to the sheath of the tendon of the deltoid, to the fibrous layers of the capsule of the shoulder joint, and so on. As a consequence of this spreading over a number of structures, the pain irradiates along the arm, simulating neuritis, and is not restricted to a joint as is the case of true arthritis. The shoulder joint itself, as far as the synovial membrane and the cartilage are concerned, is never involved in that condition.

The object of our treatment is, therefore, never an arthritic disease. Nor do we treat the necrotic tendon. What we do treat is the inflammatory process taking place in the sheath of the affected tendon, in the walls of the bursa, and in the neighboring structures. The inflammatory process presumably starts as a simple serous exudation, but owing to the severity of the necrosis there is usually a precipitation of fibrinogen so that fibrin appears in abundance. The threads of fibrin bind together the walls of the bursa and the adjacent structures. It is essential to realize that we are dealing here with loose attachments caused by fibrin, and not with fixed adhesions caused by fibrous tissue. If the latter were the case, any conservative treatment in that condition would be as ineffective as in fibrous ankylosis. A "frozen shoulder" would then never loosen up, but remain ".rozen" forever.

Experiments concerning the healing of wounds under the influence of x-rays show that the amount of fibrin between the edges of the wound is much less in the irradiated wound than in the nonirradiated wound. As a consequence, the resulting scar is thinner and finer in the irradiated area. However, the rays do not dissolve the fibrin directly. Primarily, they dilate the capillaries and increase the permeability of the capillary walls. This is followed by an increased flow of plasma from the blood, carrying along lymphocytes, monocytes, and leukocytes which have the power to phagocytize and to carry away the fibrin and the necrotic tissue débris.

Within the tendogenetic disease a calcified and a noncalcified variety may be distinguished.

The Calcified Variety

It is assumed that when the tendon is subject to a fatty type of degeneration, saponification takes place, followed by precipitation of the calcium carbonate circulating in the blood stream. Eventually, a lime deposit results which can be well visualized on x-ray films. There is no hypercalcemia, and no disturbance whatsoever of the calcium metabolism.

As to the mode of action of x-rays on the lime deposits, it is noteworthy that small doses may cause the disappearance of calcified deposits in acute cases, while large doses are required in chronic cases. In accordance with this is the fact that in acute cases even very large deposits may disappear within a few weeks, while in chronic cases even small deposits disappear only after several months. This applies also to the clinical symptoms associated with the calcified deposits such as restriction of motion and pain, in part in the region of the bursa, and in part irradiating along the arm. These symptoms subside in a few days in acute cases, while they start to subside only after a considerable length of time in chronic cases. As to the relationship between the response of the clinical symptoms and the radiographic signs of calcification, the clinical symptoms always subside first. While in acute cases the calcium deposits, as a rule, subsequently also gradually show decrease in density and size, in chronic cases the clinical symptoms may be subsiding while the calcium deposits still may be found unchanged. In cases with the calcium

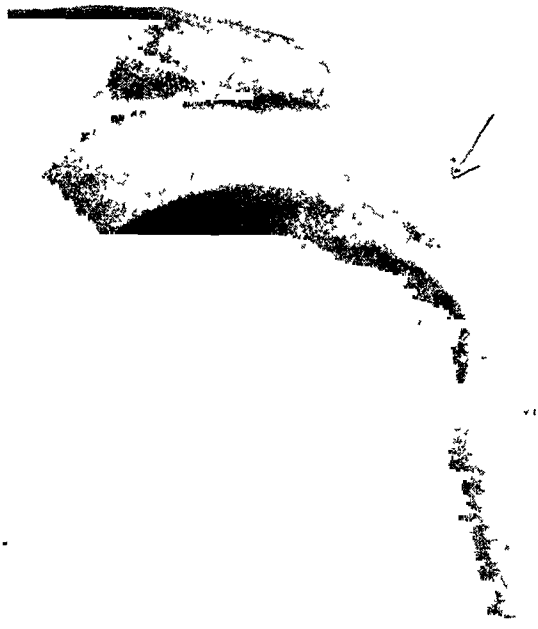


FIG. 1. Large calcification in the region of the subdeltoid bursa.



FIG. 2. Same case as in Fig. 1. Four weeks after a series of x-ray treatments.

deposits but without clinical symptoms, there is no response at all.

All these facts point to the conclusion that x-rays do not have a direct action on the lime deposits, but on the underlying inflammatory process, and that the calcium salts disappear in the course of events incited by rays in the inflamed area. It is the postradiation edema carrying phagocytic cells which causes the dissolution of the calcium deposits. In other words, it is the same radiation effect which causes the disappearance of the fibrin and necrotic tissue that also causes the dissolution of the calcified deposits. In the state of acute inflammation when the capillaries are hyperemic anyway, a small dose is sufficient to increase their permeability, and subsequently the pericapillary edema. However, the more chronic the process the less pronounced is the hyperemia and, consequently, the larger doses are required to bring about the transudation carrying the phagocytic cells in a quantity necessary to absorb the calcified deposits.

Since Renck[2] (Stockholm) suggested x-ray therapy for that condition in 1926, and Sandstrom[3] reported favorable results in a larger number of cases in 1929, a great number of papers have been published on that subject. In this country Lattman,[4] Lorimier,[5] Weinberg,[6] Baird,[7] Pendergrass and Hodes,[8] Klein and Klemes,[9] Brewer and Zink,[10] Harris,[11] and others have published valuable observations on the subject. It appears that when a uniform technic of irradiation is applied in all cases favorable results are obtained only in a certain type of case. In our fifteen years of experience in this field we have found that better results can be achieved if three separate groups are differentiated, and treated in a different manner. The impairment of the range of motion has been found as the most valuable basis for a differentiation. This criterion has proved to be of more decisive importance than the size of the deposit. It is also more dependable than the duration of the symptoms, which in the chronic cases often cannot be recalled exactly. Moreover, acute exacerbations occur in the course of a chronic condition.

The first group is marked by complete, or nearly complete, immobilization of the affected part. The pain sets in suddenly, and is so severe that, as one of the patients has phrased it, "The mere thought of a movement caused pain." The intense pain produces a strong spasm so that the arm is adducted to the body with great force. The region of the subacromial bursa is extremely tender. This acute or hyperacute condition is the pattern of the "frozen shoulder." It is caused by an extension of the calcium deposit from the tendon into the wall of the neighboring bursa, where an acute exudation develops. This condition is one of the most gratifying subjects of



FIG. 3. Calcified deposit in the region of a hip.



FIG. 4. Same case as in Fig. 3; four weeks after a series of x-ray treatments

radiotherapy as far as the smallness of the dose, the promptness of the response, and the degree of the improvement is concerned. Even a dose as small as 100 r, calculated at the bursa, given on two or three successive days, makes the acute symptoms subside overnight, so to speak, so that the disability of the patient disappears within a few days. It appears advisable to add 200 r on two successive days to prolong the duration of the postradiation edema and thus to increase the number of the cells functioning as phagocytes. One portal of entrance is sufficient in these cases. Even very large deposits may then gradually disappear without further treatment (Figs. 1 and 2). About 20 per cent of the patients are treated in this stage

The second group is marked by a restriction of the mobility of the affected arm. The arm is not fixed, as in the first type, but can be only incompletely adducted, e.g., only to 40 or 70 degrees without causing pain. It is obvious that the inflammation and the ensuing spasm are less severe in this type, and for that reason a greater range of motion is possible. This condition is chronic and tends to become progressive, presumably because the inflammatory process becomes more and more rich in fibrin, causing attachments of the bursa and the adjacent structures. To be effective in that stage a dose of 200 r, calculated in the bursa, is given six to eight times at intervals increasing from two to four days. Two portals of entrance, one anterior and one posterior, are required in these cases After a month a new series of treatments is added, if necessary, until the deposit is substantially reduced in size and density, and the pain on moving the arm has considerably subsided. About 65 per cent of the patients are treated in this stage.

The third group is marked by the lack of any restriction when the shoulder is moved actively, but pain is experienced at the extremities of the range of motion when the arm is raised over 80 degrees. This chronically stationary condition develops either as an outcome of one of the previously mentioned types, or as a result of a process insidious from the very beginning. The muscles are not spastic but may become atrophic. It is obviously a mild inflammation which, however, does not come to an end, presumably because of lack of a sufficient number of phagocytic elements in the inflamed area. To help these patients with x-rays a dose of 250 r, calculated at the bursa, is given eight times at intervals of two days. Three portals of entrance, one anterior, one lateral, and one posterior, are required in these cases After about six weeks a new series of treatments is added in accordance with the course of the symptoms. About 15 per cent of the patients are treated in this stage.

The Noncalcified Variety

In the light of the prevailing theories it is to be assumed that if the degeneration is not of the fatty, but of another type, e g , of the hyaline type, an essential precondition for its saponification is lacking, and no calcification will result. The ensuing consequences of the degeneration of the tendon, however, are the same, regardless of the type. Thus peritendinitis, bursitis, or periarthritis may develop.

The clinical pictures are the same as in the

calcified variety. Thus, there is a tenderness in the region of the subacromial bursa, there is a restriction of motion of the affected arm, to a varying degree, and there may be pain irradiating along the arm and toward the neck.

Despite the clinical resemblance, the absence of calcification, far from being an asset, proves a liability, because it deprives the condition of its most valuable diagnostic evidence. If we consider that in the tendogenetic conditions, beside the pain localized in the neighborhood of a joint, there is also pain irradiating in many directions far away from its source, it is natural that "in the absence of calcification, differentiation of this condition from periarticular fibrositis may be impossible" (Steinbrocker)[12]; and that cases "diagnosed as neuritis, rheumatism, and arthritis of the shoulder are really instances of subacromial bursitis" (Codman). There is also often difficulty in deciding whether the pain in the shoulder region originates from peritendinitis, or from a process in the cervical spine. As a consequence of a mistaken diagnosis, the shoulder may be treated with x-rays in a case in which rather the cervical spine should be treated. A failure will naturally result.

On the other hand, due to the lack of conclusive clinical evidence as to the source of the trouble, the result of x-ray therapy acquires to some extent the value of a test. When the diagnosis is wavering, for example, between a tendogenetic condition and a disease emanating from the cervical spine, the disappearance of the pain after the irradiation of the cervical spine with exclusion of the shoulder will obviously favor the diagnosis of a condition irradiating from the cervical spine, and vice versa.

To be of diagnostic value also in cases in which the irradiation of the shoulder was not followed by improvement, x-ray therapy of the noncalcified variety should be performed according to the same principles as that of the calcified variety. Both conditions respond in the same way to x-rays.

This is easily understood when we recall that we do not treat with rays the calcium deposit, but the underlying inflammatory process which is the same in the calcified and noncalcified variety. Accordingly, three groups are to be differentiated, depending on the impairment of the range of motion of the shoulder joint. Each case is treated in the same manner as the corresponding type of the calcified variety. The more pronounced the process of inflammation, and consequently the spasm causing the "freezing" of the shoulder, the smaller the dose effective and the shorter the period of time until an improvement is noticed. Accordingly, it amounts to only a few days in the cases running an acute course, and to a number of weeks in the more chronic processes.

Despite the similarity of response in the corresponding types of the calcified and the noncalcified variety, it appears that the absence of the calcium deposit is a handicap, not only in the field of diagnosis, but also in that of x-ray therapy.

This is so because, deprived of this sign, we do not have a criterion directing the treatment in that condition, while in the case of a calcified tendon the x-ray film showing the calcium deposit may be helpful in determining when the treatment is to be stopped, or when it is to be continued.

Tendogenetic Conditions Outside the Shoulder Region

The tendons of the supraspinate muscle and the neighboring muscles in the region of the shoulder joint, endowed with the function of elevating and rotating the arms, give rise to the development of tendogenetic disturbances more frequently than the tendons of all other muscles taken together.

Occasionally, however, any other tendon may also be affected. In this respect considerable differences exist, probably resulting from differences in function and activity of the muscles. Thus, some of them are decidedly affected more frequently than others, so that sites of predilection may be spoken of.

In the upper extremities, beside the tendons around the shoulder joint, the following tendons are most frequently affected: that of the triceps near the olecranon, that of the muscles below the capitulum radii, giving rise to a complex known as the "tennis elbow," and that of the flexors digitorum longus inserting on the phalangeal joints.

In the lower part of the body, tendogenetic disturbances occur in the region of the hip (Figs. 3 and 4), in the tendons of the gluteus, piriformis, and obturator internus, in the tendon of the adductus magnus and vastus medialis, forming the Pellegrini-Stieda syndrome, and the tendon of Achilles near its insertion on the os calcis. For unknown reasons in some of these the calcified variety prevails, while in others, such as in the "tennis elbow" or subtrochanteric bursa, it occurs very infrequently, if at all.

In all tendogenetic conditions, regardless of their sites, the results of x-ray therapy are in every respect comparable to those in the shoulder region. They can be summarized as follows: x-ray therapy has proved to be a valuable therapeutic agent in tendogenetic conditions, in both the calcified and noncalcified variety. The de-

gree of the impairment of motion should be used as the main criterion of the dose to be applied.

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FROM MY POINT OF VIEW

The time was 4:30 P.M. My patience was at a low ebb. The number of my patients was not. My slave driver, officially known as my secretary, ushered in a vivacious, enthusiastic person of some 30 years of age. If there is one thing which makes me cringe it is enthusiasm at 4:30 in the afternoon. The patient laid several books on my desk. I glanced at the titles, and moaned, "Deliver me!" One was a text on allergy, and I knew I was in for a bad half-hour.

Sure enough, as the enthusiastic lady proceeded, despite my attempts to interrupt, she told me not only about the causes of her asthma and hay fever, but all about the factors pertaining to allergy in [illegible] clusively, for fifteen years.

The patient, I gathered, was a school teacher. She was digging a hole, and I proceeded to help her do so, intending to pull the hole in on top of her. Thus, when she paused from sheer exhaustion, I picked up one of her other books. It was a book on calculus. I said, "So you are a mathematician; I doff my hat to you. I never could understand mathematics." Quickly came the reply. "Doctor, that is the fault of your teachers. If you had been taught the basic principles, simple arithmetic, then algebra, and on up, you could then understand calculus."

"Oh, I see your point; and do you think the same procedure is necessary in studying other sciences [illegible] nciple applies

I pulled the pin out of the hand grenade. "If that is true, and I surely agree with you, how then do you expect to understand a book on allergy when you have never been taught the basic sciences of chemistry, physiology, anatomy, and bacteriology?"

"Oh," she replied, "that is different. Everyone knows about his own body." That grenade was a dud.

Of course it isn't "different." Books on surgery, internal medicine, obstetrics, or allergy are the [illegible] the truth, the whole truth, and nothing but the truth, and are usually presented in simple terms, i.e., simple to the man who possesses the basic knowledge necessary to see and understand the truth in its entirety. But we must admit that the lay reader guides his actions, not by the scientific truth contained therein, but by his interpretation of the facts presented and this interpretation is bound by his own narrow horizon of personal observation and experience.

The number of flowering trees and shrubs, rose bushes, and fruit trees which have been destroyed is enormous, even though the article they read said, [illegible] invariably stress the fact that people differ in their sensitivities to different foods, the lay students frequently demand of me my "asthma and hay-fever diet," and intimate that "all that testing" isn't necessary.

I am sure that all M.D.'s have had this experience. I wonder if it is possible to write an article on a medical subject and use words and phrases which cannot be misunderstood by those not educated in basic sciences. My own experience leads me to answer that question in the negative.

People also get the idea that they possess full knowledge about the treatment of a disease from reading or hearing some of the remarkable results radio announcers emit at regular intervals. The formula seems to be that the more enthusiasm shown, and the more convincing the manner in which the facts and the semifacts are presented, the better and higher paid the announcer. The same formula seems to apply to medical articles written for the consumption of the lay reader. So the reader and listener is metamorphosed into a doctor giving advice and remedies, freely, to himself and to everyone else in the community. For this advice he or she charges nothing, which is exactly what it is worth.

The next step, of course, is to attempt to carry that semiknowledge into his physician's office, and use it to interpret the doctor's diagnosis and treatment.

I think it behooves us to stop and take stock of the results of any given procedure after years of following such a line. Personally, I am far from convinced that the good results of the medical educational program which is being followed outweigh the harmful effects. The harmful effects are due mainly to the fact that a knowledge of basic principles *is* a necessity before facts based upon them can be properly understood. This principle applies to almost every branch of science and, notwithstanding the lady's "opinion," the science of the healing art is no exception.—*Frank C. Metzger, M.D., in J. Florida M. A., Jan., 1945*

LESIONS OF THE CERVICAL INTERVERTEBRAL DISC: CLINICO-PATHOLOGIC STUDY OF TWENTY-TWO CASES

JEFFERSON BROWDER, M.D., Brooklyn, New York, and ROBERT WATSON, M.D., Little Rock, Arkansas*

(From the Neurological Unit of the Brooklyn Hospital and the Neurosurgical Service of the Kings County Hospital)

DURING the past decade a phenomenal interest has been manifested in the diagnosis and surgical treatment of patients who present clinical findings considered to be the result of extrusion of an intervertebral structure. The publication of Mixter and Barr[1] in 1934 gave impetus to a clinical enterprise which has disclosed that dorsal displacement of a part of an intervertebral disc is a frequently encountered clinicopathologic entity. Prior to their publication only 56 lesions of this type at all levels of the vertebral column had been described, whereas since this time some 4,000 cases have been added to the literature. Interestingly enough, one third of those recorded before 1934 were in the cervical region; however, since this date less than 2 per cent of all reported instances were in this area. The clinical syndrome resulting from protrusion or herniation of a disc in the lower lumbar area has been well authenticated and effective surgical therapy for relief of the disability produced by such a process has been established. This cannot be said of a cervical lesion of comparable pathogenesis. As estimated by the number of such cases reported, there appears to be a relative infrequency of occurrence of pathologic alterations of the cervical discs; consequently, the syndrome is too often not considered in differential diagnosis when a dysfunction referable to the cervical region is under consideration. From a review of the literature, we have been able to collect only 69 verified cases with protrusion or herniation of a part of the cervical disc. Many of these have merely been enumerated in the reports of large series of extruded discs occurring at various levels of the vertebral column. It seems unlikely that this number represents the true frequency of the lesion. Just as patients with "slipped" discs in the lumbar area were thought to have lumbago, sciatica, sacroiliac strain, etc., before Mixter and Barr designated the causative factor, it is probable that some patients with symptoms and signs resulting from herniation or protrusion of a cervical disc are now considered to have some form of intrinsic disease of the spinal cord. It therefore seems important that all such verified cases of extruded cervical discs be recorded in order that the syndrome produced by this pathologic process be as readily comprehended as that occurring in the lower lumbar area. Toward this end we are presenting our experiences with 22 cases in which this lesion had disturbed the function of the cervical spinal cord and/or nerve roots. Twenty-one were verified at operation and one at autopsy.

Full credit should be accorded Stookey[2] for the delineation of the clinical entity that results from compression of the cervical spinal cord by dorsal protrusion of a part of an intervertebral structure. Although in his initial paper this lesion was designated as ventral extradural chondroma, a second paper[3] by him concerning the same subject was entitled "Compression of the Spinal Cord and Nerve Roots by Herniation of the Nucleus Pulposus in the Cervical Region," indicating that he now considered the so-called chondroma to be a protruded part of a disc. Mixter and Barr[1] in their first publication included four instances of rupture of a cervical disc with protrusion. In 1935 Mixter and Ayer[4] added four more cases, a total of eight from their clinic. In a report of a series of 100 cases of herniated discs at all levels, Walsh and Love[5] found six to be in the cervical region. Additional cases have been recorded, the most recent being that of Semmes and Murphy[6] and a review of 750 cases by Love and Walsh[7] which include 18 in the cervical region.

Pathologic Considerations

Several important investigations have been published relative to the pathologic changes observed in the intervertebral structures. Of particular merit are the contributions by Schmorl,[8] Andrae,[9] Beadle,[10] and, more recently, Saunders and Inman.[11] The excellent review by Saunders and Inman incorporates the essential features of previous studies by others. From the accumulated evidence it appears that the annulus fibrosus is not infrequently encroached upon by the expanding nucleus pulposus, in some instances reducing it to a peripheral ring. Areas of necrosis may occur in the annulus, often serving as a starting point for fissures or tears. Superimposed trauma, even of a mild character, may result in a herniation of a part of the nucleus

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* By invitation.

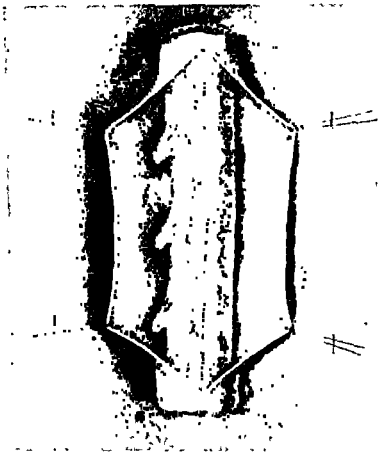


FIG. 1. An artist's conception of the cervical spinal cord compression by a true herniation of the nucleus pulposus producing clinical findings of ventral gray-column disturbance without evidence of fiber tract involvement. Note the herniated protrusion of the disc presented between the nerve roots.

pulposus through the defective part of the annulus. Such a sequence of events seems to be the logical explanation for many of the commonly encountered herniations of the nucleus pulposus in the lower lumbar area. In addition to this, Andrae recognized hyperplasia of the protruding cartilage which was considered by Stookey as chondromatous and later termed by Elsberg[12] "ecchondrosis." From the observations made in the 22 cases of the present series we have concluded that other pathogenic factors must be given consideration to explain the anatomic pathology disclosed in some. We have elected to group the different types of lesions according to their gross anatomic characteristics. These are: Group A—discrete, rounded, or oval-shaped masses consisting of cartilage-like tissue that project from the intervetebral structure into the ventral aspect of the vertebral canal; Group B—herniation of a part of the nucleus pulposus through a rent in the annulus fibrosus; Group C—a protrusion of a dorsal part of the annulus fibrosus surmounting a proliferation of the margins of the adjacent vertebral bodies. Stookey was primarily concerned with the type of lesion included in the first group; those in the second group are the soft protruded parts of the



FIG. 2. A protruding nodule severely damaging the cervical spinal cord.

nucleus pulposus similar to those found in the lower lumbar area, while the lesion in the third group has received but scant attention in the literature.

In the present series, fourteen of the lesions in 13 patients were of the Group A type, one patient having two protruding nodules, each at a different intervertebral level. All of these were 1 to 1.5 cm. in diameter and appeared to be an integral part of the intervertebral disc. At operation the area of the spinal cord impinged upon by the mass usually appeared softened and the undulations imposed on the cord by the movements of the cerebrospinal fluid associated with arterial pulsations and respirations were abruptly altered at the implicated level. In truth, it is this abnormality in the undulatory movements of the spinal cord that frequently attracts the operator's attention to the ventrally located protrusion. The lesions were most frequently found to lie slightly to one side of the midline, forming a glistening rounded elevation as viewed through the thinned-out overlying ventral dura. In a few instances in which a small nodule was laterally placed and compressed a spinal root, the spinal cord was found not to be encroached upon at all. However, a lesion so placed, if of sufficient size, may result in profound degenerative changes in the cord. Upon incising the ventral dura over the projecting mass, a pale, slightly irregular, grayish-white surface presented an appearance not unlike the adjacent part of the annulus. The masses were easily removed with a sharp curette. Microscopically the tissue had the appearance of fibrocartilage.

The second group of lesions was composed of the true herniation of a part of the nucleus pulposus. The masses in general were larger than those in Group A. There were five patients with this lesion in the series under consideration. In two, the spinal cord was grossly compressed by a tumor as large as the distal phalanx of one's index finger. In one case the anterior spinal cord had been compressed, disturbing the function of the ventral gray column unilaterally and without



FIG. 3. Cross section of the spinal cord caudad to the lesion depicted in Fig. 2. Areas of degeneration are quite obvious.

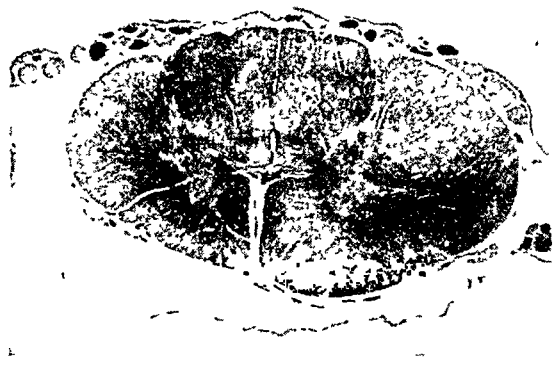


FIG. 4. Cross section of the spinal cord cephalad to the lesion shown in Fig. 2. At this level the degeneration is rather widespread.

clinical evidence of fiber-tract or nerve-root involvement (Fig. 1). The remaining two cases were examples of small herniations compressing a root and without spinal cord implication. Upon opening the ventral dura overlying such a herniation, a rather tough capsule was found to enclose the mass. Incision through this membrane was followed by partial spontaneous extrusion of the contents. The herniated nucleus, when removed, had the characteristic appearance of an extruded portion of the nucleus pulposus as encountered at other levels of the spinal column.

Frequently the mass came away as one piece of pearly-gray, flaky material with frayed, irregularly shaped tentacles. All five examples were located in the anterolateral part of the vertebral canal as obtained in comparable lesions disclosed in the lower lumbar area. In retrospect, after a critical analysis of two of these cases of relatively large dorsal herniation of a part of the nucleus pulposus there were no features of the symptomatology or physical signs that would aid in a preoperative differentiation of this lesion from a neoplasm so situated. A preoperative diagnosis in the remaining three was correctly made. In two of these the symptoms and signs were referable to a single nerve root only and in both, the complaints of pain in the upper chest and upper extremity followed trauma of a character that could be logically considered as a causative factor.

The third group presented a problem that as yet is not fully comprehended. As stated, this pathologic process is a posterior displacement of the dorsal portion of the annulus fibrosus seemingly resulting from proliferation of the adjacent margins of the vertebral bodies. Overgrowth of bone was a prominent feature. Such lesions may be a part of a more extensive so-called hypertrophic spondylitis. There were four cases in this series. Roentgen-ray examination in three cases disclosed a lipping of the vertebral margins associated with narrowing of the intervertebral space at the level of the lesion. A prominent ridge of bone and cartilage was found to extend across the entire ventral aspect of the spinal canal in these, and in one a segment of annulus was dorsally displaced by the overgrowth of bone. That this pathologic process is a protrusion of a part of an intervertebral disc seems incontrovertible; however, it is of different pathogenesis than that commonly designated by this term. Histologically, the projecting tissue was found to be the same as a relatively normal-appearing annulus fibrosus with attached fragments of bone.

Specimens of dorsally displaced discs obtained at operation are frequently somewhat fragmented by the manner of removal; consequently, microscopic study of this material often gives an incomplete picture of the process. The recorded observations on tissues obtained at autopsy have permitted a more detailed study of the involved intervertebral structure. Our investigations of the material obtained at operation in the present series disclosed findings relative to the protruded or herniated part of the disc that are in accord with those reported by others. The single specimen of the cervical spinal cord with the protruded part of the fifth intervertebral disc removed at autopsy without disturbing relationships is deserving of special comment. This specimen showed marked flattening and distortion of the cord (Fig. 2). At the level of the ventral extradural mass there were scattered areas of degeneration in the cord without predilection for any particular fiber tract. The anterior gray columns were distorted and showed a paucity of cells at this level. Sections of the cord extending three spinal segments caudad to the lesion revealed degenerative changes limited for the most part to the fasciculus cuneatus and the dorsolateral spinocerebellar tracts (Fig. 3). Sections extending two spinal

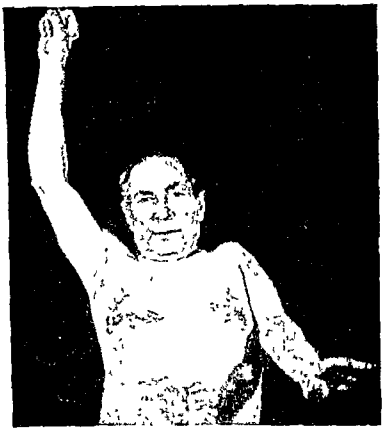


FIG. 5. Photograph of patient demonstrating loss of abduction of the left arm without other abnormal findings. The lesion in this case is that shown in FIG. 1.

segments cephalad to the lesion showed rather widespread degenerative changes (Fig. 4).

Clinical Manifestations

The symptoms and signs arising from compression of the cervical spinal cord by a discrete hyperplasia and dorsal projection of a part of the annulus fibrosus (Stookey's nodes) are fairly constant in pattern. It is noteworthy that in some instances one of these small nodules can produce such profound changes in the spinal cord without there being more than slight partial obstruction of the spinal subarachnoid space. The account of the clinical story and the abnormal physical findings given by Stookey in his original article concerning the ventral extradural chondroma stands as an excellent description of spinal cord disturbances that result from the protrusion of a small nodule into the ventral spinal canal. The findings in most of the patients in our series are in accord with the symptomatology and signs as recorded by him. Relatively early in the course of the disease there is pain and slight clumsiness of an upper extremity with weakness of the homolateral lower extremity. In addition there are changes in appreciation of painful and thermal stimuli on the side contralateral to the lesion. The functions of the dorsal columns are spared for a time. The extent of involvement of the upper extremities depends on the level of the projecting mass. Later in the course of the disease there is implication of the trunk and extremities bilaterally and finally all fiber tracts of the spinal cord become affected. From the evidence derived by clinical examination we have been unable to differentiate with certainty the discrete nodules from a protruding ridge of annulus fibrosus. It may be said, however, that the patients with the rounded, laterally placed lesions frequently manifest signs of unilateral implication of the spinal cord for several months before bilateral involvement is evident, whereas, as would be expected, a protruding ridge of annulus across the ventral vertebral canal often produces bilateral abnormal signs from the outset.

The clinical manifestations produced by true herniation of the nucleus pulposus through a defect in the annulus fibrosus depend on the rapidity with which the nucleus becomes extruded and the size of the mass projecting into the vertebral canal. The genesis of this lesion appears to be clearly understood. Whenever the herniated nucleus presents at the extreme lateral position and is relatively small, only a nerve root is involved. Mild compression of the cord by such a pathologic process may result in dysfunctions limited to the adjacent anterior gray column (Fig. 5). Moderate compression usually implicates the spinothalamic and pyramidal pathways, and, in the instances in which the mass increases to a relatively large size, all fiber tracts will eventually suffer. These herniations may attain considerable size and although advanced physiologic interruption of the cord may accompany the larger masses, the spinal cord seldom undergoes irreparable damage. It is the completeness and promptness of recovery of patients from whom such a lesion has been removed that set it apart from that previously described.

As stated, it has been impossible to clinically differentiate between the projecting discrete nodule and the ridge of annulus fibrosus in many instances. This is particularly true if the effects of either pathologic lesion have been of considerable standing. In our experience, a ridge of annulus produces bilateral signs from the outset. With but one exception, the patients with annulus protrusion presented evidence of advanced spinal cord disturbances when admitted to the hospital. In addition, it is possible that the technical difficulties attending surgical removal of a ridge that extends across the entire ventral canal may necessitate more displacement of the cord than is desirable, thereby adding a mild insult to the cord. In all events, the results following operation for this type of lesion have not been satisfactory.

Facts About the Group as a Whole

From a pathologic point of view it seems certain that the three processes described are not related except for the anatomic structures implicated, yet the symptomatology, physical findings, and therapeutic measures employed tend to draw the three together, thereby making it profitable to consider the entire series as a whole. There are several findings of interest in the 22 cases. Fifteen of the patients were men and 7 were women. The average age was 46 years. The initial complaint was referable to the upper extremities in fifteen instances, ten of these having a radicular type of pain and five having paraesthesias of the involved forearm, hand, and fingers. Those with paraesthesias and two others had pain in the neck and across the shoulders later in the course of their disease. In 5 cases, pain was never a feature of the illness. Of these 17 patients with the complaint of pain in either the neck or upper extremities, 10 had an aggravation of pain upon coughing or sneezing. In 7 cases the onset was characterized by weakness of one or both lower extremities. The duration of symptoms interpreted as being referable to the lesion was from six weeks to six years. Thirteen patients had symptoms less than a year and the remaining 9 gave histories of disturbances varying from one year to six years and two months. The average duration of symptoms for the entire series was twenty-one months. A questionable story of injury was obtained from only 5 patients. One of these fell on a slippery street, striking the occipital region of the head, about nine months before onset of symptoms referable to the cervical spinal cord. Another alleged a slight torsion of the neck while at work, but this accident was recalled only after the patient had been apprised of the type of lesion that was disclosed at operation. The third struck the top of the head on a low ceiling. The fourth sustained minor injuries in an automobile accident. The fifth began to have pains in the neck radiating into the left index finger and thumb while lying on his back repairing a truck. Only 7 patients came under observation prior to the onset of disturbance in gait. Of the remaining 16 patients, 2 were bed-ridden, 5 could walk with assistance, and 8 could walk short distances unassisted, albeit with considerable difficulty. Urinary bladder dysfunction was experienced by 7 patients, 2 having had urinary retention with overflow incontinence and 5 with mild to moderate hesitancy and urgency.

The physical examinations disclosed findings indicative of moderate to severe dysfunctions of the spinal cord with the exception of 7 patients. Four of these were examples of laterally placed nodules and 2 had true herniations of the nucleus, all associated with pain in an upper extremity and only slight, if any, evidence of spinal-cord disturbance. The remaining one showed marked paresis of the muscles of the left shoulder girdle without other demonstrable abnormalities (Fig. 5). In the other 15 patients examination disclosed variable degrees of spinal cord dysfunctions, namely, marked loss of motor power in the hands, interosseous atrophy, variable alterations in activity of the deep reflexes of the upper extremities depending upon the level of the lesion, loss of abdominal reflexes, spasticity, and hyperreflexia of the lower extremities with Babinski's sign bilaterally. Fibrillations were observed in the muscles of the shoulder girdles in 3 patients. A definite level of sensory disturbance could be demonstrated in 15. In 8 of these there was evidence of implication of the dorsal as well as the anterolateral columns; however, in no instance was a complete physiologic interruption of the spinal cord present. Spinal puncture revealed clear cerebrospinal fluid in 21 patients. In one instance there was a complete spinal subarachnoid block and in 13 others varying degrees of partial obstruction were demonstrable. No obstruction was present in 7 patients and spinal puncture was not carried out in the remaining one. The total protein content of the cerebrospinal fluid ranged from 21 to 215 mg. per 100 cc. Excluding a single instance of relatively high total protein (215 mg.) the average was 48 mg. In only one patient were the abnormal physical findings exaggerated by the withdrawal of cerebrospinal fluid. Plain roentgen-ray examination of the cervical vertebrae disclosed narrowing of the intervertebral space at the site of the lesion in six patients. In three of these, hypertrophic lipping of the posterior aspect of the vertebral bodies was shown to project into the spinal canal at the level of the lesion, which was disclosed at operation to be a ridge of annulus. The plain roentgen-ray studies of the cervical spine in all others revealed no abnormalities of significance. A contrast medium was used in 13 cases. Evidence of the presence of a partial obstruction in the cervical subarachnoid space was demonstrated by this method in 6. The procedure was not of diagnostic aid in the other 7 patients.

Surgical Experiences

There were, in all, 25 operations on 21 patients of the series, 2 having been subjected to secondary operations and another to 3 explorations. The pathologic processes were encountered from the third to the sixth cervical interspaces, inclusive. There was one lesion at the third interspace, five

at the fourth, nine at the fifth, and six at the sixth intervertebral space In addition there was one patient with two protrusions, one at the fourth and the other at the fifth interspace Eight of the nodular lesions (chondromas) were on the left side, five on the right side, and one near the middle of the ventral aspect of the vertebral canal All five examples of the true herniation of the nucleus pulposus were on the left side There were three patients with protruding ridges of annulus that extended across the entire ventral spinal canal and one with a ridge across about two thirds of the canal

Hemilaminectomy was not employed in any instance, since it is believed that a wide exposure is advisable to avoid undue manipulation of the spinal cord Then, too, a wide exposure permits cutting of two or more dural attachments of the dentate ligament bilaterally, thereby insuring the greatest possible mobility of the cord As previously stated, after opening the dura, the softened area of the cord frequently directed the operator's attention to the correct location of the lesion No unusual difficulties were experienced in the removal of the true herniation of the nucleus pulposus or the laterally placed cartilaginous nodules Most of the lesions were removed transdurally If a ridge of annulus fibrosus is to be removed, great caution should be exercised, one half of the protrusion being cut away from one side and the remainder from the other side of the spinal cord The procedure advocated by Poppen[13] may be utilized in the instances in which the ridge of annulus involves a single nerve root and is not impinging upon the spinal cord In the present series this procedure was not employed Secondary operations became necessary because of recurrent symptoms and signs in 3 patients Two of these recurrences were caused by incomplete removal of a ridge of annulus The other is of sufficient importance to warrant a brief narration At the first operation a nodule was removed from the middle of the anterior surface of the vertebral canal Improvement in function ensued and the patient became ambulatory by the fifteenth postoperative day During the next ten days the power in the hand was slowly lost and walking became progressively difficult At this time a spinal subarachnoid obstruction was demonstrated and the total protein content of the cerebrospinal fluid was 180 mg per 100 cc The wound was reopened, disclosing a most interesting lesion The nucleus pulposus had become extruded into the canal, forming a tumor mass fully three times the size of the original cartilaginous nodule removed at the first operation As has been suggested by several surgeons, whenever a segment of the annulus fibrosus is removed, an attempt should be made to curette away the entire nucleus pulposus at this level Had such a procedure been carried out in the above-described case, postoperative protrusion of the nucleus might not have occurred Following the second operation there was some improvement, however, not enough for the patient to walk unassisted Six months after the second procedure the wound was opened for the third time There was no evidence of encroachment upon the spinal cord by a mass, but the cord was small, yellow-tinted, and had obviously suffered irreparable damage

Case Reports

Case 1.—The first example in our experience of protrusion of a ridge of annulus fibrosus was that of a woman with signs of advanced cervical spinal cord disease From the subsequent course of events in this instance, it appears that the operator was not sufficiently radical in the removal of the bony ridge After nine months of continued improvement following operation, the patient slowly lost ground during the next year When readmitted to the hospital about two years following the first operation, her disability was even greater than at the time of the first admission The laminectomy wound was reopened, the spinal cord mobilized, and a bony ridge, covered by a thin layer of cartilage, was removed There was considerable improvement in walking, but the impairment of function of the hands remained unaltered In an other of the four cases with the so-called ridge of annulus, the operator was not satisfied that the bone projecting into the ventral vertebral canal had been completely cut away The attachment of the dura to the posterior longitudinal ligament was divided for a distance of 3 cm both cephalad and caudad to the ridge and then the free margins of the open dorsal dura were sutured laterally to the muscles This formed a sling for the spinal cord For about a week following operation the patient complained of pain over both shoulders, no doubt caused by mild distortion of the cervical roots This discomfort disappeared completely and now, two years after operation, there is marked improvement in the gait and function of the hands, although complete recovery has not ensued

Case 2.—The other patient with a ridge of annulus who was subjected to a secondary operation was treated at the first operation by forming a dural hammock as just described Rapid improvement ensued, although complete recovery was not attained In about eight months after operation the lower extremities slowly began to be more spastic and the partial recovery in function of the right hand was lost The wound was reopened A complete new dura had formed over the dorsal aspect of the cord, in fact, no part of the dura that had been sutured to the muscles could be identified as such The dural sling was still effectively holding the spinal cord away from the ridge of annulus At the upper limits of the laminectomy opening the

arachnoid was markedly thickened and had constricted the cord. This was readily divided after the removal of an additional bony arch had given adequate exposure. Four months after the second operation the function of the extremities was as good as, if not better than, at any time following the first operation.

Comment

Three different types of pathologic processes involving the intervertebral discs in the cervical region have been encountered. A wider recognition of the possible existence of such lesions and the correct interpretation of symptoms that may accrue from compression of the cervical spinal cord and/or nerve roots will make for earlier diagnosis. Persistent pain in an upper extremity of a radicular character, or a numbish sensation over a dermatomic zone with intermittent "pin-and-needle" sensations whenever the area is rubbed, associated with a slight limp favoring the same side as the involved upper extremity, is sufficient evidence to warrant surgical intervention. In examples of laterally placed protruding masses, the spinal cord may not be involved. The clinical findings usually suggest implication of a single nerve root and therefore one cannot be certain of the causative factor. The use of a contrast medium and a fluoroscopic tilt-table may not be of diagnostic help, since a lesion so placed produces little if any encroachment upon the dural envelope, nor is there appreciable deformation of the dural sleeve of the adjacent nerve root. Severe pain that persists after conservative treatment is sufficient reason to surgically explore the area under suspicion. Paravertebral neoplasms and low-grade inflammatory lesions of the brachial plexus present the most difficulty in differential diagnosis. The former, if large enough, are frequently palpable along the lateral aspect of the neck or, if situated in the lower cervical spinal region, may be visualized on roentgen-ray examination distorting the pulmonary apex. The inflammatory lesions of the brachial plexus usually implicate the secondary cords and therefore produce symptoms and signs indicative of a more extensive involvement than does a laterally placed protrusion or herniation of a part of an intervertebral disc. Whenever the issue cannot be satisfactorily solved, it is best to institute a conservative palliative regimen and await further developments. Trauma may be, but is not necessarily, an important factor in the production of a protruded or herniated disc. Moreover, in the light of our present knowledge, trauma should not be assumed to be a contributing or aggravating factor unless unequivocal evidence of injury has been obtained. Certainly in the present series, a history of injury was disclosed in only a relatively small percentage of the cases.

The majority of cases of protrusion or herniation of a disc in the cervical area are not correctly diagnosed prior to exposure of the lesion at operation. Furthermore, few come to operation before advanced and sometimes irreparable spinal cord dysfunction is evident. Often this delay has resulted from implicit reliance on the findings derived from the Queckenstedt test. One not uncommonly hears the comment, "the spinal subarachnoid space is patent and the total protein of the spinal fluid is normal," with a finality that inhibits further thought concerning a lesion that could be successfully removed surgically. The failure to demonstrate even a partial spinal subarachnoid obstruction is small evidence against the presence of some type of posterior protrusion of part of a cervical disc, particularly a ridge of annulus fibrosus, provided the clinical findings are in favor of such a process.

Narrowing of the implicated intervertebral space and in some cases lipping of the posterior aspect of the vertebrae has been visualized on the roentgen-ray films. These findings are not infrequently encountered in patients without evidence of spinal-cord involvement. Moreover, narrowing of the fourth or fifth cervical intervertebral space is not an uncommon finding after 45 years of age, the abnormality usually being without clinical significance. Deformation of the vertebral canal as found in large tumors of considerable standing has not been observed in association with the lesion under consideration. It may therefore be said that the information derived from plain roentgen-ray films of the cervical spine is only occasionally an aid in the diagnosis and treatment of lesions of the intervertebral discs.

Further experience will be necessary to substantiate or refute the impression gained from this series, namely, that recovery following the removal of a true herniation of the nucleus pulposus is prompt and functionally complete, that the patients with a ridge of annulus have had the greatest residual disability, while those with a discrete nodule stand in an intermediary position.

It is to be recalled that more than half of the patients presented signs of end-stage disease. No doubt early diagnosis and early operation would give more uniformly gratifying results.

Conclusion

1. A series of 22 cases with cervical spinal cord and/or spinal nerve root compression caused by herniation or protrusion of a part of an intervertebral disc has been reviewed.

2 From the number of cases reported in the literature (69), we judge that these lesions are either relatively rare or are not recognized

3 Three different types of pathologic processes have been encountered (*a*) discrete, oval, or rounded nodules projecting into the ventral vertebral canal, (*b*) true dorsal herniations of the nucleus pulposus, and (*c*) ridges of annulus fibrosus surmounting hypertrophic bone at the margins of the adjacent vertebra

4 A negative Queckenstedt test does not exclude the presence of such a lesion

5 The operative mortality for the series was zero and the case mortality was 4 5 per cent, one patient having died before coming to operation

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THE AMERICAN JEWISH JOINT DISTRIBUTION COMMITTEE FORMS HEALTH GROUP

The American Jewish Joint Distribution Committee, aligning itself with governmental intergovernmental, and voluntary agencies in preparing for the postwar health needs of Europe s war victims, announced on December 15 the formation of the Committee on Health, Nutrition, and Medical Service

Dr Jacob J Golub, director of the Hospital for Joint Diseases was named chairman Dr Golub, who has been on the J D C Executive Committee for many years, was a member of a Health Commission with similar objectives, which J D C sent abroad after the last war

In announcing the formation of the Committee, Joseph C Hyman, executive vice-Chairman of the J D C, stated 'The starvation diets of these people, the lack of medical care and medicines, the systematic destruction of Jewish institutions including hospitals clinics, sanatoria research centers, etc —all these factors have combined to create a crucial state of health in Europe which must be relieved by joint action of all the agencies concerned with the problem"

Because of the singling out of the Jews in the German extermination program, Mr Hyman pointed out that their health problems are of extreme seriousness and that the formation of the Committee is the first step in meeting an urgent need

'The special committee, patterned on a similar J D C Health Committee organized in 1921, will concern itself with supplementing postwar public health programs now being maintained or considered by the governmental and intergovernmental agencies engaged in similar activities It is also concerned with the rebuilding of the special health facilities, many of which were constructed with J D C help in the past thirty years, and which the Germans have now destroyed

As one of its preliminary objectives, the Committee will study surveys on European vital and medical statistics, housing, sanitation, and epidemic diseases

Also planned is the addition of a public health expert to J D C's overseas staff, which is headed by Dr Joseph J Schwartz, chairman of the J D C European Council

Emphasizing J.D C 's policy of utilizing local resources in its work, Mr Hyman pointed out that, just as after the last war, the J D C will work with [illegible]

[illegible]

Cohn, Rockefeller Institute of Medical Research, Dr Louis I Du[illegible] Presi dent, Metropolit[illegible] and Assistant to the [illegible] meri can Red Cross, [illegible] of the *Journal of the A*[illegible] Dr J[illegible]

[illegible]

Abel Wolman, professor of sanitary engineering, Johns Hopkins School of Engineering, Dr Leon Wulman, secretary of O S E , and Morris W Haft, a member of the J D C Board of Directors

A REPORT ON THE PROGRESS OF THE GLAUCOMA CAMPAIGN DURING THE PAST THREE YEARS*

MARK J. SCHOENBERG, M. D., New York City

(Chairman of the Committee on Glaucoma of the National Society for the Prevention of Blindness, and Chief of the Glaucoma Clinic of the Manhattan Eye, Ear and Throat Hospital)

SEVERAL years ago the National Society for the Prevention of Blindness initiated a campaign for the prevention of blindness from glaucoma.

Considering the fact that there are at least 20,000 individuals totally blind in the United States and an additional 150,000 blind in one eye from this disease, the Society recognized the need for emphasizing a project concerned with its control.

Blindness from glaucoma can be prevented in a large number of cases if discovered early and treated properly. Therefore, our problem is to stimulate the discovery of patients with the disease in its very earliest stages, to provide regular, adequate treatment, and to secure the complete cooperation of the patient.

For the purpose of organizing our campaign the following steps of a program were outlined:

1. The appointment of a committee, consisting of ophthalmologists representing the larger eye clinics in Greater New York and lay persons representing hospital administrations, the United Hospital Fund, the New York State Commission for the Blind, and the National Society for the Prevention of Blindness. This group is known as the Committee on Glaucoma, and is the source through which the rank and file of ophthalmologists, general practitioners, other professional groups, eye institutions, organizations concerned with conservation of vision, and the general public are being reached and invited to further the progress of the campaign.

2. The second step was to survey present methods followed in eye clinics of making a diagnosis, treating, and handling glaucoma patients; and to study the results obtained from treatment over a period of ten or more years.

3. On the basis of the findings in the survey, to suggest and introduce measures that might remedy the weaknesses of the present system prevailing almost universally in eye clinics.

4. To establish a demonstration Glaucoma Clinic and to encourage as many eye institutions as possible to organize special clinics in order to work out details which can be accomplished only by actual experience.

5. To agitate among general practitioners the need for an examination of the eyes not less thorough than that they are doing when making a general health survey of the rest of the body.

6. To induce medical colleges to offer students more thorough training in recognizing or at least suspecting the presence of an impending but preventable blindness.

7. To establish a checking station for tonometers where the instruments now in use by ophthalmologists may be checked to determine their accuracy and reliability.

8. To arrange with manufacturers of tonometers that the newly made ones be submitted to a testing laboratory which should certify them if found accurate.

9. To distribute educational material to the general public about early symptoms of glaucoma and emphasizing the need for periodic eye examinations, particularly for people 40 years of age and over.

10. To promote research in the clinical study of glaucoma, especially of diagnosis in its early stages and nonsurgical treatment.

What Has Been Accomplished So Far?

1. In spite of the fact that the present war emergency has depleted staffs of eye institutions, special services to glaucoma patients have been organized at Mt. Sinai Hospital Eye Clinic under direction of Drs. Robert Lambert and Herbert Katzin, at New York Eye and Ear Infirmary by Dr. Willis Knighton, and at Bellevue Hospital Eye Clinic under direction of Drs. Daniel Kirby and Alfred Kestenbaum. At Post-Graduate Hospital, a medical social worker has been assigned to offer social guidance and follow-up for all glaucoma patients.

2. About one and a half years ago a special glaucoma clinic was organized at the Manhattan Eye, Ear and Throat Hospital. This is a demonstration project, sponsored by the National Society for the Prevention of Blindness. The glaucoma clinic has a number of innovations and interesting features which were illustrated in the "Glaucoma Exhibit" at the annual meeting of the State Medical Society.

A salaried perimetrist (ophthalmologist) is recording fields of vision every one to three months for all patients attending this clinic. During the past year, the perimetrist trained

*Read at the Annual Meeting of the Medical Society of the State of New York, New York City, May 10, 1944.
Dr. Schoenberg died on February 15.

volunteers to chart fields, preparing them to offer their services to other eye clinics in New York.

3. A checking station for the examination of tonometers in use by ophthalmologists as to accuracy of construction and performance has been functioning for the past two years at the headquarters of the National Society for the Prevention of Blindness, first under the direction of Dr. A. Posner, later under that of the author of this paper.

4. Appointment was made in 1942 by the American Academy of Ophthalmology and Otolaryngology of a Committee for the Standardization of Tonometers through which tonometer-checking stations have been established in Chicago and San Francisco. The work of these stations is being closely coordinated with that of the station previously established in New York.

5. Demonstrations and exhibits were prepared for annual meetings of the American Medical Association, the American Academy of Ophthalmology and Otolaryngology, and the American Ophthalmological Society. Publications and exhibit materials have been distributed to a number of agencies concerned with prevention of blindness which have organized special glaucoma campaigns. Many requests for advice concerning organization of glaucoma services have been received from ophthalmologists, medical social workers, nurses, and prevention-of-blindness workers. There is indication that many ophthalmologists have become more interested in our campaign.

6. Papers* on glaucoma were read at medical meetings and published in ophthalmologic journals and the Sight-Saving Review.

A number of radio talks were given during the past year by members of the Committee on Glaucoma.

7. Two modest prizes—one for an original contribution to the earlier diagnosis of glaucoma simplex, and one for the improvement of its nonsurgical treatment, have been offered to the ophthalmologists in North, Central, and South America.

8. A glaucoma exhibit was organized in conjunction with the 1944 meeting of the Medical Society of the State of New York.

What Is Yet to Be Accomplished?

Our task is far from completion.

1. We must continue to urge general practitioners to become more glaucoma-conscious and to suggest special examinations which should be included in a general physical examination of all over 35 years of age.

2. An educational program, including methods of recognizing glaucoma, should be organized for optometrists. This group could help immeasurably in preventing blindness from glaucoma by adding certain examinations to their general routine for their patients 35 years of age and over, keeping in mind the possibility of glaucoma. However, it seems that education of optometrists cannot be started before a majority of the ophthalmologists agree on the advisability of such a step.

3. We must convince a larger number of ophthalmologists of the value of a special glaucoma clinic—both to themselves and to the patients.

4. A course for training professional perimetrists should be started. Ophthalmologists and hospitals are badly in need of the services of such qualified technical assistants.

5. Additional medical social services must be provided by hospitals so that glaucoma patients can be kept under continuous medical care and supervision.

6. Funds must be obtained and made available to qualified ophthalmologists who are eager to study the various unsolved problems related to glaucoma.

7. We must induce the rank and file of ophthalmologists to take an active part in the campaign for prevention of blindness from glaucoma and to stress the importance of this problem in the communities in which they practice.

Prevention of blindness from glaucoma is possible in a large percentage of cases if we follow an organized plan and if we secure the cooperation of the many groups concerned with the glaucoma problem.

Discussion

Dr. Edwin Perry Hall, *Oneonta, New York*— Any preventable condition, and especially blindness, is a challenge. Dr. Schoenberg is to be congratulated on the progress he is making in the campaign against blindness from glaucoma. Unfortunately, it will take a long time to demonstrate results, and that can only be done by the collection of reasonably accurate statistics; perhaps he has them, but I must confess to not having studied this disease from the statistical angle. The whole campaign may be summed up in one word: education, directed toward the earlier diagnosis and treatment of cases. His review of the steps taken in the metropolitan area needs no discussion but commendation, but I am interested in what can be done in the rural areas which I represent. We have no free clinics except the doctors' offices; staff and county society meetings demand programs of more tangible interest to the general practitioner. The

* Schoenberg, Mark J.: Trained Nurse and Hosp. Rev. 109: 233 (Oct.) 1942; Sight-Saving Rev. 12: 252 (Dec.) 1942; (National Society for the Prevention of Blindness Publication #393); New York State J. Med. 41: 2216 (Nov. 15) 1941; Tr. Am. Acad. Ophth. and Otol 61, (Nov.–Dec.) 1941; Am. J. Ophthalmol. 25: 521 (May) 1942; Arch. Ophthalmol. 28: 173(July) 1942.

problem of reaching the public is more difficult, but, after all, they are quite conscious of the seriousness of a "hardened eyeball." I agree with Dr. Schoenberg that the optometrists should be reached in this campaign of education. It impresses me that the social workers of the Blind Commission might well direct more intensive efforts in this educational field as well as in that of rehabilitation of the blind. I hastily went over the records of the last five years and discovered about 30 cases of definitely increased tension, two thirds of those being long-standing cases, and one half of that two thirds blind in one eye. A criticism of my own records suggests that collective statistics would be improved by a uniform system of records in follow-up. It impresses me that a traveling consultation clinic, organized along the lines of the State tuberculosis and orthopedic clinics, seeing cases referred by any legal practitioner, would have an immense educational value for both the public and all types of practitioners; this might well be another "postwar project."

Dr. Frank M. Sulzman, *Troy, New York*—Dr. Schoenberg is to be congratulated on his paper, not only for the subject matter but for his willingness to undertake this instructive research and to stimulate interest in the subject of glaucoma, which is one of the real problems of ophthalmology.

The work of the joint committee and other matters he has suggested will, I know, have our hearty approval. There is no glamour in it but just plain hard work to get at facts that will aid in solving some of the problems that are still far from solution.

My old professor, in either materia medica or general medicine, I just forget which, made the statement one day in his lecture in my medical school days that when you saw a list of drugs used in many of the diseases that the human frame is subject to, you could be reasonably sure that not one was a specific for any disease.

Years have come and gone and, observing the work of my distinguished colleagues here and abroad, the treatment and diagnosis of glaucoma have often come up for discussion. It has been a personal observation that a method of operative procedure seen in many will, after a lapse of time, be superseded by a different method of approach. Discussion with the operator will elicit the information that he was not satisfied with his previous results. This is a general observation, one that I am sure everyone has made in many of the well-known clinics, and just shows how far we are from solving the problems of glaucoma. In these centers for the study of glaucoma, the Manhattan Eye, The Infirmary, and the Ophthalmic Institute, where sufficient material is at hand and competent observers are to be had, combined with a real desire and enthusiasm for the work, some basic facts will be developed which will further aid in solving some of the early diagnostic problems of this important condition. I do not know of any more important work in the field of ophthalmology than this. We all see these cases but, due to the pressure of work, the day is never quite long enough to do many of the things we are called upon to do; we are unable to give the time and detail so necessary to get sufficient data to base a valuable opinion on.

There are two points that I would like to call Dr. Schoenberg's attention to and ask that some thought and study be given to them. One was a remark made to me by Magitot in Paris some years ago. We were discussing the subject of glaucoma and he turned to me and said, "Doctor, if you will take a series of cases and operate on them by any method or methods that you may elect I will take an equal number and treat them by dietetic measures and I will obtain fully as good a result with my series." He was emphasizing a certain line of treatment which, unfortunately, I have been unable to carry out, and, looking over the literature, have been unable to obtain an opinion on this data. I respectfully submit this as a possible thought for future study and research. Professor Magitot is a man of keen intellect and an excellent operator. He would hardly make this statement without basing it on some facts from his own personal experience. Time does not permit detail on the many excellent points of Dr. Schoenberg's paper, but one is worth consideration in the little time that I have left for discussion, namely, perimetry, or taking fields. This work is time-consuming, not spectacular, but yet it is very important. One point in taking fields which I hope the doctor will give further thought and study to was made to a group of students by the late Sanford Gifford, whose most untimely death in Chicago recently we all deeply regret. We were members of a group taking Backsteed's course in perimetry in Vienna some seventeen or eighteen years ago. Backsteed emphasized in his lecture the point that in taking fields we should not attempt to take them in the ordinary white coat but should wear a gray coat with gloves to match if possible, about the same depth of color as the gray on the arc on the Feri-Rand perimeter. The point he developed was that the movements of the bare hand are sometimes detected and misinterpreted by the patient being examined instead of the movements and location of the test object that is being moved along the arc in the course of taking the fields in the usual way. We had a friendly discussion regarding this point afterwards. I practiced it for a time, but due to the limited number of cases and pressure of time, did not carry it out long enough to form a direct evaluation of its importance. I hope, if opportunity presents itself, that further study of this point can be made, as it might be of some value.

The standardization of instruments is, of course, extremely important. I am very much surprised to find so much difference has already been found in these instruments made by different manufacturers or by the same manufacturer. While not to the point, we have many times used the two standard types of instrument in the office and found a close relationship; if the Schiotz showed an increase of tension, the MacLean in its method of reading showed a proportionate increase. It was a check we made for our own personal use.

I am sure I express our deep thanks to Dr. Schoenberg and his group for the work they are doing, and only hope they will continue with this study.

THE USE OF BISMUTH IN THE TREATMENT OF VINCENT'S INFECTION

HUGH M. COX, M.D., New York City, and JOSEPH H. HODAS, LT. CMDR., USNR

(From the Medical Service of Misericordia Hospital)

DURING the last World War one of the most common epidemics among our armed forces and among civilians as well was Vincent's angina, or, as it was more commonly known, trench mouth. Although the disease was infrequently fatal, the cost in manpower and production time was tremendous. There were few or no adequate measures for its control. Treatment was mainly local. It was permitted to run its course, and frequently recurred. The name "trench mouth" was given to this infection because of its particular prevalence among the personnel at the front and in the trenches. This can be readily understood because of inadequate sanitation, close quarters, and the use of common eating and drinking utensils which prevailed in these places during the emergency. Subsequently, the infection spread to the civilian population and has been endemic and at times epidemic throughout the world ever since. No doubt the occurrence of Vincent's infection among the troops and civilian population will have to be dealt with during this war. With this in mind, we believe that it is timely to record our experiences during the past few years in the treatment of this condition with preparations of bismuth. We have found this heavy metal easy to administer, and effective in shortening the duration of the disease and in preventing recurrences This form of therapy is now new and seems to be in more common use than the literature on this subject would indicate. A careful search discloses but few reports since the use of bismuth for this infection was first described by Rigby in 1929.[1] Bismuth has also been used extensively in South America in the treatment of acute anginas of streptococcal origin, as has been reported by Monteiro and his coworkers.[2]

Before detailing our own experiences, it might be worth while to review the pathogenesis of the infection and the clinical picture presented. Vincent's angina, trench mouth, ulceromembranous stomatitis, or fusospirochetal infection of the throat, is believed to be due to two organisms: (*a*) Bacillus fusiformis or fusiformis dentium, and (*b*) Borrelia or spironema vincenti, growing in symbiosis. Some authorities, however, hold that they are the same organism merely in different stages of development.[3] The organisms may sometimes be found in ulcerative conditions of the mouth and throat, but their constant presence in Vincent's infection and their great number points to their specific character. It is now believed that Vincent's organisms are secondary invaders. The initial lesion and point of entry may be caused by a herpetic virus infection of the mouth and gums;[3] ulcerative stomatitis due to avitaminosis;[4] or periodontal infection and poor mouth hygiene. Infection usually results from direct contact with an infected individual, such as by kissing or by contact with contaminated utensils. Children and young adults are most susceptible. The disorder usually begins insidiously with malaise, general pains, and a temperature of 100 to 101 F. The pain in the throat is slight, but the glands on the affected side become enlarged and tender, and the breath is usually offensive. The infection is nearly always unilateral at the onset, but may later spread over the gums and nasopharynx. When the throat is involved, a soft, detachable, yellowish membrane first forms on the affected tonsil and comes away in a day or two, exposing a well-defined ulcer. Another type of this infection, more commonly seen on the gums and tonsillar pillars, is a raised, diffuse, nonulcerative form, which in healing leaves white or yellowish vesicles. Pulmonary complications due to these fusospirochetal organisms are by no means infrequent and have been often mentioned in the literature.[5] It is equally possible, too, that the condition may spread upwards and may be a factor in some of the refractory cases of so-called chronic sinusitis and postnasal drip.

Treatment

In the past, the treatment of Vincent's angina has embraced a great number of compounds and has been mainly topical and local. The great number of medications used attests to their nonspecific nature and inadequate therapeutic value. Soap, methylthionine chloride, picric acid, tartar emetic, acriviolet, hexylresorcinol, chamomile, copper sulfate and glycerin, ultraviolet rays, intramuscular mercuric cyanide, intravenous emetine, short-wave therapy, sodium citrate, and a host of oxygen-liberating drugs, such as sodium peroxide, sodium perborate, and potassium permanganate, have all been used in the past, in addition to many others less commonly used and too numerous to be mentioned. More recent therapy, and perhaps more effective, has been the use

TABLE 1.—Number of Injections Required for Negative Smear

Total Number of Cases	1 Injection	2 Injections	3 Injections	4 Injections	Unimproved
35	6	13	10	6	2

TABLE 2.—Symptomatic Improvement

Within 24 Hours	48 Hours	72 Hours and Longer	No Improvement
4 cases	23 cases	6 cases	2 cases

of bismuth pastes applied topically[6] and also the local application of neoarsphenamine in a glucose or glycerin base.

During the period of the first World War, and for some time afterwards, the use of vitamin C was advocated, since it was believed that many lesions were due to a deficiency of this vitamin. Actual therapeutic tests and vitamin determinations did not confirm these findings, and this treatment was later replaced by treatment with nicotinic acid on the basis that the lesions were similar to those found in pellagra.[7] In 1938 Spies reported a series of cases treated with nicotinic acid with encouraging results. Further studies and better evaluation are needed to form a more complete picture as to the value of vitamin therapy in Vincent's angina. True, a debilitating condition of the mouth and gums, such as is caused by a vitamin deficiency, may predispose to Vincent's angina and provide a portal of entry. When this condition is shown to exist, the administration of adequate vitamins will undoubtedly shorten the duration of the disease.

The use of arsphenamine intravenously has also been advocated and is at times quite effective. Both bismuth and the arsenicals are effective antispirochetal agents, but the arsenic compounds are more toxic and the intravenous route of administration more hazardous, and should be used only in extreme cases. In addition, bismuth has the advantage over arsenic, in that following intramuscular injection of the metal, it is carried by the blood stream and deposited in the salivary glands and around the gums where the Vincent's infection is usually located.

The objection to the use of bismuth has been due to the complications of nephritis, hepatitis, and stomatitis. Investigation into these toxic results has shown that they were due to overdosage or to prolonged administration.[8] The former can be avoided by more accurate determination of dosage in accordance with the patient's age and general condition. Since it is seldom necessary to give more than four doses of bismuth, chronic poisoning should not occur.

TABLE 3.—Recurrences (Based on a Follow-up of 20 Patients for a Period of Two Years)

3 Months	9 Months	2 Years
2 cases	None	2 cases

The oral administration* of bismuth has also been used by us in the treatment of Vincent's infection. Although these cases are not numerous enough to enable us to form a definite opinion, it appears that because of gastrointestinal discomfort which occurred in several of our patients, and because the infectious process was not checked as promptly as with the injection treatment, this form of therapy should be reserved for those unable or unwilling to take the intramuscular injection. In this connection, it is interesting to note that the average duration of the disease in orally treated cases was about thirty days, as compared with ten to fourteen days' duration in those treated intramuscularly.

The intramuscular preparations used were the bismuth salicylate in oil, and a water-soluble bismuth.† No recognizable difference was observed in the results from these two products. A combination of bismuth and cevitamic acid‡ was also used on a series of cases in the hope that this combination might prove more effective than the bismuth compounds more commonly used. These results also indicate no definite advantage.

Method of Injection

The usual injection for adults consisted of 2 cc. of bismuth preparation, injected intramuscularly by standard technic into the gluteal region. This was administered as soon as possible after a positive smear was obtained. The throat was rechecked by an additional smear about four or five days later, and if still positive, another injection of bismuth was given on the opposite buttock. One week later another smear was taken and if still positive, the third injection was given. Usually even the most refractory cases responded within this period. If a fourth injection was necessary, this would be given a week after the third. Usually, relief of pain and discomfort was obtained within a period of thirty hours from the first injection and most of the smears became negative within a period of ten days. Recurrences appear much less frequently with this type of therapy than with local therapy. Bronchial symptoms, such as cough and expectoration,

* The preparation used was Sobisminol, a reaction product of sodium bismuthate, triisopropanolamine, and propylene glycol.

† The water-soluble bismuth used was Thio-bismol (sodium-bismuth thioglycollate—Parke-Davis and Co.).

‡ Bismuth cevitamate (Smith and Co.).

when present, also showed improvement. This suggests that the Vincent's infection probably spread to the larynx and bronchi and was the cause of these symptoms.[9] It also seems plausible that a great many cases of so-called chronic bronchitis and perhaps even bronchiectasis and lung abscess may have had their origin from an original Vincent's infection of the mouth. It would be well to search diligently for the Vincent's organisms and, when they are found, to treat these cases early and adequately, thereby preventing these complications which become more difficult to treat later.

Analysis of Results

The results of treatment in our series of 35 cases have been summarized in Tables 1, 2, and 3. Thirty of these cases were ambulant when first seen. Symptomatic improvement was observed in about thirty hours in most of our cases. The majority of patients required between two and three injections in order to obtain a negative smear. Relatively few required four, and only 2 patients failed to respond to this form of therapy, one of whom subsequently responded to two injections of neosalvarsan; the other still shows a positive smear after two years of varied and intensive treatment. This case may be complicated by constant reinfection. The acute cases with fever and systemic symptoms seemed to respond more favorably and quickly than those in whom the infection had persisted for several weeks or longer. Bronchial symptoms, such as cough and expectoration, which were present in about 25 per cent of our patients, also responded favorably to this type of therapy. The average duration of the infection under treatment was about two weeks, in contrast to six weeks or longer with local therapy. Recurrences were relatively infrequent as well, and promptly responded to one or two additional injections when they did occur. No toxic results were observed in any of our cases.

Summary

The treatment of Vincent's angina has been facilitated by the use of bismuth intramuscularly. The duration of the infection has been shortened, recurrences have been less frequent, and relief to the patient more prompt with this form of therapy. Only 2 cases of 35 treated have failed to respond. No toxic results were observed. This form of therapy is advocated as inexpensive, accessible, and safe.

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NAVAL MEDICAL OFFICERS NEEDED

The need for Naval Medical officers is great. The fact that the Army has announced the suspension of procurement of physicians should not be interpreted to mean that the Navy is in the same position. We must face the truth; our rate of casualties has been increasing in recent months. Our men

Officer Procurement is making a special appeal to the members of the medical profession to assist them in every way possible. They fully realize the drain which has been imposed upon civilians. In many sections of the country the shortage of doctors is acute. Hard as this shortage is on tens of thousands of people, yet thousands of people must be asked to make sacrifices in medical care for their friends, relatives, and countrymen whose need for

to a only serve their country, but at the same time, an opportunity to learn the most advanced technic of the profession,

path for him to follow is to seek a commission with the U.S. Navy.

Since the start of the war, physical requirements have been somewhat modified. Physicians are now accepted up to the age of 60. Men in the older age groups are assigned to hospitals, dispensaries, and other Naval activities ashore.

Physical defects which are organic constitute a cause for rejection. However, waivers can be granted for defects which were formerly disqualifying, such as variations in height, weight, defective vision, and others.

Interested physicians, without making any definite commitment whatsoever, will be interviewed at their convenience at the Office of Naval Officer Procurement, 33 Pine Street, New York, on any weekday between 8:30 A.M. and 5 P.M.—telephone WHitehall 3-4060.

Therapeutics

CONFERENCES ON THERAPY

THESE are stenographic reports, slightly edited, of conferences by the members of the Departments of Pharmacology and of Medicine of Cornell University Medical College and the New York Hospital, with collaboration of other departments and institutions. The questions and discussions involve participation by members of the staff of the college and hospital, students, and visitors. The next report will appear in the May 1 issue and will concern "Psychologic Aspects of the Treatment of Pain."

Treatment of Poliomyelitis

DR. C. H. WHEELER: Anterior poliomyelitis is a disease which interests us all. There is so much about it we do not know. The way it spreads and how to prevent it are still pretty obscure and there is a good deal of uncertainty about the treatment. You are all aware, I am sure, of the wave of interest which has passed through the country in Sister Kenny's treatment. Dr. Philip M. Stimson, as you know, works also at the Willard Parker Hospital and has had an extensive experience with poliomyelitis. He is going to give us his ideas about treatment this afternoon.

DR. PHILIP M. STIMSON: Anybody who talks on the treatment of poliomyelitis these days must do so with an apology because it isn't easy to prove whether one treatment is better than another. One has to depend pretty much on general impressions.

Poliomyelitis varies enormously from year to year and from case to case. One series may contain no paralytic cases and the next may contain a very large number. The results are not comparable. Also, observers differ greatly in what they see when they look at a poliomyelitis case. The average orthopedist, for instance, looks for deformities and muscle weakness. The person who is trained by Sister Kenny does not look for muscle weakness but looks for spasm. They see entirely different things.

Poliomyelitis is a virus disease, and like most of the virus diseases it is one for which we have no drug, chemical, or serum which is of any benefit after the onset of clinical manifestations, so all we can do in the treatment of poliomyelitis is to minimize the end results, and there are still differences of opinion on how that can best be done.

I shall begin first by taking up minimal cases, the cases that are sometimes called characteristic minor illness, undiagnosable as poliomyelitis, but they occur in great number in the presence of a poliomyelitis epidemic. For instance, we had a child in this hospital with overwhelming bulbar poliomyelitis, whom we took to the Willard Parker Hospital. She died two days later. We talked with the mother and asked if she had any other young children. She said, "Yes, a 9- and a 2-year-old." "How are they?" "Fine, the 9-year-old had a little headache and digestive disturbance three or four days ago but is perfectly well now," she answered. We asked her to bring this 9-year-old child into the hospital the next day so that we could look him over. This we did, and the child had a slightly stiff neck. We did a lumbar puncture and there were 60 cells in the spinal fluid. We hospitalized the child and found that he had developed a little spasm in the hamstring muscles. The child was given hot compresses and watched carefully for two or three weeks and came out of it perfectly well, but the disease would have been entirely overlooked if there had not been this serious case in the family. The treatment of minor cases, we feel, is of considerable importance.

The natural history of the disease as it is now understood predicates the infection by mouth, the virus getting down the alimentary canal, invading the mucosa, multiplying there, being excreted in the bowel, and passed out in the feces. A variable amount of the virus penetrates the mucosa, or some barrier somewhere, to pass along the regional nerves to the central nervous system. The factors which determine this invasion or breaking down of the barrier are very poorly understood. One factor is insult to the mucous membrane, such as tonsillectomy. A common cold or perhaps an attack of indigestion may be that insult. We don't know. We do know that many cases of recognizable poliomyelitis are preceded by a minor illness, sometimes called the first hump of the dromedary type of poliomyelitis. Whether the minor illness is a manifestation of the disease itself, or whether it is the insult to the mucous membrane which breaks down the barrier, is not known. We also have fairly good evidence that chilling and fatigue are contributory factors to breaking down that barrier. Monkeys have been given equal quantities of the virus and half of them have been put in cold baths, made to swim, and allowed to get chilled. These mon-

keys had worse cases of poliomyelitis than those which were kept quiet in their cages We know many instances of people who came down with severe poliomyelitis a day or two after being chilled or exhausted There was a football game reported in the German literature in which the boys got excessively tired and chilled, there were some six recognizable cases of poliomyelitis in that group of boys who were apparently incubating the disease at the time of the game Every now and then we hear of an adult—a nurse, for instance—who had a headache and fever, vomited, but did not report sick because the next day was her day off, and who kept going until the third day, and then developed a severe case of poliomyelitis So it seems desirable in the presence of a poliomyelitis epidemic to treat every minor illness as potential poliomyelitis, to put the patient to bed, and keep him as quiet as possible Paul, of New Haven, in a speech at the Academy of Medicine a few years ago, laid emphasis on the importance of putting patients with poliomyelitis to bed at the very onset of symptoms The worst cases seemed to be in those who fought the disease and kept going for a few days Rest would seem to be of the greatest importance

That brings us to the management of a patient who is seen for the first time There are many details of the management which are important The first thing we do is to observe the patient without handling him We just look him over, and see how sick he is Does he have difficulty in breathing, is there evidence of bulbar involvement, is there evidence of tight muscles as shown by abnormal position?

On November 15, 1944, at the Willard Parker Hospital a group of us examined a 10-year-old girl who had just been admitted By observation and talking with her we found that she had seventh-nerve involvement We call this a cranial case She had bulbar involvement as evidenced by difficulty in swallowing fluids One of the points which was particularly interesting was that as she lay in bed the left leg seemed shorter than the right, and we found that the lumbar muscles on the left side were very much tighter than those on the right Spasm on one side caused shortening of the left leg and narrowing of the space between the left iliac crest and lower ribs in contrast to the right side She was also observed to have a sway-back She had lumbar lordosis In her case we found it was due to spasm of the iliopsoas muscles on both sides As she lay on the bed one shoulder was higher than the other and was rotated inward, due to spasm of both of the trapezius muscles and of one pectoral muscle, which caused the inward rotation We did not try to find out how much weakness she had because this symptom is likely to change in a few days The things that counted on admission were how sick she was, whether she could breathe well, whether she could swallow, and where she had tight muscles She could swallow, so we were able to give her fluid by mouth, but she had some difficulty and occasionally it would come back through her nose The trouble was not with deglutition but with her palate Her breathing was normal But we tested her a little further and found that one deltoid was quite weak and the other one a little weak, and we know from experience that when one deltoid is gone there is apt to be trouble with breathing When both deltoids are gone there is almost certain to be trouble with breathing So the house staff watched this girl very carefully to see if she developed difficulty in breathing

The treatment we instituted was, first, the use of fluids by vein The hydrodynamics of poliomyelitis are not clearly worked out and I hope there will be some discussion about it today There are those who advocate giving hypotonic saline intravenously and inserting a lumbar puncture needle on the theory that they are going to flush out the perivascular infiltration in the cord What good that is supposed to do I don't know More recently they have stopped using the lumbar needle and are using only hypotonic saline, but we don't advocate it What we are doing is using hypertonic 10 per cent glucose Usually the older child or adult receives 500 cc on admission, slowly injected In monkeys, this measure has been shown to reduce the brain bulk, and in poliomyelitis we know there is edema of the cord and of the brain The hypertonic glucose reduces the edema by osmosis, and at the same time supplies fluid and some nourishment After the first 500 cc we usually change to 5 per cent glucose to supply the fluid requirements as long as there is inability to swallow We give it particularly to patients who look sick and have a toxic appearance Whether we are doing the right thing or not we are not sure

In the bulbar cases sometimes there is an enormous secretion of mucus in the nasopharynx One child seemed to excrete as much as a pint in half an hour Whether it would be well to keep such patients a little dry by withholding fluids, we do not know They cannot cough and cannot swallow The material must be removed in other ways

After we have given the patients fluid we handle them as little as possible We let them assume that position in bed in which they are most comfortable A child who has a muscle which is tight will have pain in that muscle if it is stretched For instance, if the hamstrings are tight and the child is laid flat on his back with the

leg perfectly straight, the hamstrings are stretched to a greater extent than if the child is allowed to lie on his side with hips and knees bent.

So we either let them lie on their sides or, if Kenny packs are used, as they are most of the time, we let them lie on their backs, but we then put a pillow under their knees so that they are bent to avoid the extra pull on the hamstrings. Similarly, if the pectoral muscles are tight, we are apt to put a little baby pillow under their shoulders to hold them forward. If the neck is tight, as it is practically invariably, we don't put a pillow under the head. The head is kept flat on a hard mattress. We make the patients as comfortable as we possibly can.

The hot compresses, according to the technic of Kenny, increase comfort very materially. It is the one best remedy we have for relieving the patient's discomfort in the early stages. Whether the hot compresses do more than that is a matter of opinion. Some people think they speed up the release of spasm; others don't. If spasm is left alone it usually will clear up of its own accord, but I am among those who think that hot compresses help to hasten the release of spasm.

The principal points I want to discuss in the treatment of poliomyelitis relate to the two difficult kinds of cases, the bulbar cases and those with respiratory difficulty. But I will first say a word about the ordinary spinal case.

In the acute stage of the usual spinal case there is indeed a question as to whether anything we do accomplishes more than rest in bed would accomplish. Rest in bed and time allow those anterior horn cells which were not killed, but put temporarily out of business, to recover. There is no drug or other treatment which will help those cells. They will recover no matter what you do, if they were not killed. Spasm will almost always clear up if left alone. I think it clears up more quickly with hot compresses.

The treatment of the average so-called spinal case is largely one of physiotherapy. The best physiotherapy technician whom I know in the country at the present time is Sister Kenny. She is amazingly good as a technician and, if she would limit her activities to that, she would get a lot further. If you were to read the pamphlet which was published by the New York City Department of Health in about 1926 on the treatment of poliomyelitis, you would note that it speaks of incoordination, of forgetting how to use muscles, of muscle spasm and of how it should be treated. Sister Kenny has popularized these points and has given much publicity to the importance of treating those three factors in poliomyelitis; that is, muscle spasticity or spasm, incoordination, and what might be called hysterical paralysis, but which she calls alienation.

I want now to discuss the treatment of cases with respiratory distress and the bulbar cases. In many of the bulbar cases there is very little that we can do. We see patients come in and expire right in front of our eyes. Their progress is downhill no matter what we do. A person must be very humble when he undertakes to treat a bulbar case. But then there are patients who come in and look just as sick, who don't die, who hang on, and then get well, and they usually get entirely well. Now what is the difference? I don't know. We obtain the most skillful nursing care that we can get. We give them fluids, of course. They accumulate a large amount of mucus in the nasopharynx, and that must not be allowed to get into the trachea and bronchi, or they drown. It must not be allowed to remain there, because they have difficulty breathing past it. So we raise the foot of the bed and put patients on their chests, face down. This permits gravity to come into play, and we have suction going all the time. We have special nurses on the job until the patients are well enough to apply suction to their own throats. We give them a big catheter which they can use if they do not have arm involvement. We do not allow them to have anything by mouth if there is any difficulty in swallowing. We watch their breathing. We don't use any drugs. We use a great deal of oxygen. Usually we cannot use an oxygen mask as then we cannot watch the patients adequately, and for the same reason we do not use a tent. We cannot use aspiration if they have a mask on, so oxygen has to be given by nasal catheter. Above all, they are kept as quiet as possible. I might add that we keep the parents away; they disturb and excite the patient. If the patients have any stiffness, we put the proper packs on them; that is, while they are prone, hot compresses are laid on the back of the neck and on the back. That can be done without disturbing them.

Then, after the first twenty-four or forty-eight hours, if the patient cannot swallow, we are apt to try to pass a Levine tube down into the stomach through one nostril, and the patient is then fed by tube. Some years ago a patient was fed thirty-three days that way. That is the longest we have had before the patient could swallow again. Usually they have the tube for four, five, or six days, and then are able to swallow.

Many of these bulbar cases are complicated by respiratory difficulties. This brings us to the subject of respiratory troubles occurring in poliomyelitis. There are four general types. Each requires different treatment. In the first type there is involvement of the respiratory center.

The cardiac and respiratory centers are situated in the bulb in the region of the nuclei of the ninth to the twelfth nerves, and are, therefore, very apt to be involved if there is other bulbar involvement A patient with this type of respiratory difficulty retains some control of the intercostal muscles and the diaphragm If you ask him to take a deep breath, he can do so But the control is sufficiently impaired so that when he is not thinking about it, the respirations become irregular, shallow, and ineffective The patient is apt to become cyanotic, and the pulse thready Curiously enough, in these children the blood pressure may rise to 130 or 140 mm Then as the respiratory and cardiac centers fail, the blood pressure begins to fall Oxygen is no longer helpful The patient becomes unconscious and dies To put a patient of that type in the respirator is only a gesture, perhaps, to try to keep the child going by artificial respiration another half hour, perhaps until the parents can come to the hospital, or perhaps to let the parents think that everything possible has been done for the patient But it is without avail

The second type of respiratory difficulty in bulbar cases results from the accumulation of fluid Although there is no trouble with the respiratory center, the child has so much difficulty trying to breathe past that fluid that he grows tired It is unwise to put him into a respirator, which only sucks the fluid down into the chest and, of course, does a great deal of damage

The other two types of respiratory trouble are seen in spinal cases In one, there is loss of innervation, in the other, there is spasm of the respiratory muscles There is, of course, much overlapping If the trouble is due largely to spasm, the patient is treated with hot compresses, as illustrated in the following case A 17-year-old boy came into the hospital with spasm of his neck and chest, and even of the abdominal muscles The only way he could breathe was by using the muscles in front of the neck He was breathing by lifting his thoracic cage with the platysma and sternocleidomastoid muscles A half hour after treatment with hot compresses he was breathing with his chest, and he came along beautifully without having to be put in a respirator As spasm was relieved it was found that he had practically no weakness of any of those muscles His trouble was entirely due to spasm He was examined with the fluoroscope, and it was shown that the diaphragm was not working at all It was not paralyzed but perfectly rigid across his chest, and as he took a breath the diaphragm did not move On the other hand, we have patients who come into the hospital with the intercostal muscles and diaphragm paralyzed, and thus the child has no true respiratory muscles to breathe with He may be trying to breathe with his neck, pectoral, or back muscles, but he gets very little air We try to carry him along with encouragement, oxygen, and hot compresses because we feel that the end results are better if he can fight it out without having to be put in the respirator If, despite these measures, the child shows signs of anoxia, particularly when he begins to develop twitching around the corners of the mouth and then fails to answer questions, we at once give artificial respiration, either manually or with a respirator, until he comes back to consciousness When he has rested a little we stop the respirator and encourage him to maintain spontaneous breathing We have had patients in and out of a respirator eight times in a week, and have then been able to keep them out entirely But, if we once leave a patient in the respirator for two or three days, he is apt to be in the respirator for two or three months, during which time contractures develop in his respiratory muscles despite all efforts at treatment with hot compresses He now has great difficulty in breathing with his chest muscles From having been in the respirator he has learned to breathe with his neck Worst of all, he has become apparently permanently unable to cough He cannot get the mucus up out of his trachea and he has a marked tendency to aspirate mucus and develop atelectasis Many of these patients who have been in respirators a long time live for some months, but then die from what appears to be pneumonia Upon autopsy the cause is found to be atelectasis with pneumonia superimposed It is our belief that these patients are best served by being encouraged to maintain breathing without the respirator as long as they are conscious

I was much amused by an article on the use of the respirator written three years ago by a noted authority in which the following argument was given for the use of the respirator at the first sign of respiratory difficulty "This machine gives the respiratory muscles the nearest possible approach to the rest given by a splint to a biceps" That is just what we don't do nowadays for the biceps when it is in the acute stages of the disease A neurologist does not immobilize the limb in a patient with a severed nerve He keeps it moving and thus keeps the muscle in good condition It would seem logical, then, that when we have a nerve that is more or less out of business, nothing is to be gained by immobilizing the muscle In fact, we know definitely that harm is done because then the effects of immobilization as well as those of the loss of innervation must be overcome So, if that is the reason for the use of the respirator, it strengthens us all the more in the

feeling that respirators ought not to be used unless absolutely necessary.

Sister Kenny has been quoted as saying that there must be no support whatever, that the patients must get along on their own support. I suppose the 100 per cent followers of Sister Kenny would therefore consider splints and braces as anathema, but I think it is common sense that there must be support against gravity and for weight-bearing. As long as the patient is flat in bed there is very little gravity effective, except perhaps a little in a case of footdrop, but that is easily handled with a sandbag under the foot. But when a patient begins to sit up or stand, then there must be support for weight-bearing and for gravity. Splints should never be used when they increase muscle spasm.

Many orthopedists believe that when there is weakness of the anterior tibialis the gastrocnemius contracts and overstretches the anterior tibialis. They therefore recommend that in the acute stage of the disease the foot be pushed up to a right angle and held there so as to prevent stretching of the anterior tibialis. Those of us who are seeing a lot of acute poliomyelitis think that that is just the wrong treatment. To push the foot up at right angles increases the spasm of the gastrocnemius. We believe that the slight possibility that the anterior tibialis may be overstretched is less important than the danger of increasing the spasm of the gastrocnemius.

On the other hand, Sister Kenny believes the primary trouble is in the gastrocnemius, which has gone into spasm, pulling the heel up and stretching the anterior tibialis, which may or may not be weakened. Because of the spasm of the gastrocnemius the anterior tibialis cannot contract to pull the foot up. Her treatment, then, is to relax the spasm of the gastrocnemius, and when that is relaxed the anterior tibialis is re-educated to contract in its usual normal manner.

DR. WHEELER: Dr. Hansson, will you comment on Dr. Stimson's remarks and make any additions which you would like to make from the standpoint of the physical therapist?

DR. K. G. HANSSON: I believe that Dr. Stimson has clarified many points in the treatment of poliomyelitis. The immediate treatment for acute poliomyelitis should be in the hands of pediatricians. The second stage is the province of physical therapy, and the third stage is the province of the orthopedic surgeons. There is fairly general accord in the treatment of the acute phase by the pediatricians and of the paralysis or deformity by the orthopedic surgeon, but in the area of the physical therapist there is a good deal of controversy.

During the last twenty years or so we have had various theories of treatment. In the 1920's we used to put these patients in pools and exercise them freely; that is, active exercises began three weeks after the acute onset. Then in the 1930's we started immobilizing the affected limbs. This immobilization, which is now much criticized, is not as foolish as it seems. In the 1940's there came a return to early mobile treatment; that is, from the time the diagnosis is made. However, statistics since 1920 show very little difference in the actual number of "cures." When the reports come from orthopedic hospitals where they deal mostly with paralytic cases, the "cures" usually range around 60 per cent. In reports from general or contagious disease hospitals, the "cures" usually run up to between 80 and 90 per cent, because nonparalytic types of poliomyelitis are included. My own impression, after using the new (Sister Kenny) treatment for three years is that after its use the patient's general condition is very much better than it used to be with the previous forms of treatment. They learn to get along better without much support and, I think, due to the packing and re-education exercises, the condition of the muscles is much better with the present treatment. It certainly does no harm to start physical therapy early. So far I have not seen the marked deformities and contractures which were formerly seen. We now see very few of the severe paralytic scolioses. We also see very few of the drop foot cases. It is perhaps too early to be certain because many of the deformities occur several years after the acute onset.

We have always used some form of heat for relief of the muscle spasm. The current treatment in the last three or four years places more emphasis on muscle spasm. I believe it has gone a little too far, and I still think that the most important part of the disease is the paralyzed, not the spastic, muscle. Moldaver, of the Neurologic Institute, Schwartz, of Rochester, and Watkins, of Boston, studied the muscles by means of the electromyogram. They found that for the spastic muscle the myographic curve is very similar to normal muscle under tension. They further found that some of the muscles antagonistic to the spastic muscles showed a perfectly normal response, while others showed the reaction of degeneration. Therefore, one cannot assume that spasticity is the important part. There is need for more careful studies by means of electromyographic or other forms of electric recording of muscle function in order to ascertain whether the muscle is really paralyzed, or only inactive for the time being, due to the spasticity of the opposing muscle groups.

DR. WHEELER: Why would it not be sensible to treat the patients in a hot tub as the psychia-

trists do rather than to apply hot packs over a long period of time?

DR. STIMSON: They are doing that at Haverstraw. They have a pool at 104 F., but it is a curious thing that Sister Kenny's technic, with its elaborate ritual and ceremony, in her hands seems to get better results than any deviation from it.

INTERN: I would like to ask Dr. Stimson to what extent the Kenny treatment is applicable to a case which develops in a home. Should the patient be sent at once to the hospital, or can the mild case be treated at home? If treated at home, how much of the Kenny treatment is utilized?

DR. STIMSON: If it is a mild case it can be treated at home, but many mild cases develop very quickly into bad ones. That is the only difficulty. In a mild case treatment can be done at home in several ways. If a wringer is not available for wringing boiling hot compresses according to the Kenny technic, a very good hot compress can be made by wringing a piece of blanket out of hot water from the hot-water faucet and ironing it with a very hot iron at the bedside until it is essentially dry.

INTERN: How often do you reapply the compresses?

DR. STIMSON: It depends entirely on the patient. Miss Kenny would have you begin at 8:00 in the morning and apply them every two hours until 8:00 at night. Many patients do very well, however, on prone packs. They lie on their face, prone-packed for an hour, and the compresses are changed every fifteen minutes. This is repeated four times a day. Prone packs, particularly when you are short of help, are often satisfactory. Haven't you found that to be true, DR. HANSSON?

DR. HANSSON: Yes.

DR. WHEELER: What is the elaborate ritual of which you speak, Dr. Stimson?

DR. STIMSON: Sister Kenny speaks of the way in which the packs are to be put on and in what sequence, where the safety pins are to go, just how the patient is to be held while the packs are applied, and then how often they are to be applied.

DR. WHEELER: From the practical standpoint, is it correct to say that if you apply a hot moist pack continuously to the spastic muscles that you are carrying out the essentials of her treatment?

DR. STIMSON: Partly. Of course, re-education of the muscles is a major part of her treatment.

DR. HANSSON: It is important not to include the use of heat given by means of the hot bath such as employed by the psychiatrist. That is not the type of heat for the treatment in poliomyelitis. The fact that the packs are superior to the pool is, I believe, due to the fact that the packs, when put on, are usually 120 to 122 F. and cool off rapidly. Therefore, you start with maximum heat and go down to a degree or two below body temperature in two or three minutes.

DR. WHEELER: The alteration in temperature is, then, the important factor.

DR. CARL H. SMITH: A very practical point has come up in regard to the Kenny treatment to allay spasm, and that is, how long should it be applied?

DR. HANSSON: As long as there is spasm.

DR. SMITH: I have seen the Kenny treatment used for as long as a month. Is that correct, Dr. Stimson?

DR. STIMSON: Even a year.

DR. SMITH: What is your end point? There is no spasm for a year, is there?

DR. HANSSON: Oh, yes, there may be.

DR. MCKEEN CATTELL: Is there any scientific evidence to show that the presence or absence of spasm affects the end result of the condition? Is its value merely to relieve the discomfort for the time being?

DR. HANSSON: I believe it does more than relieve discomfort.

DR. WHEELER: What do you think, Dr. Stimson?

DR. STIMSON: I think the truth is part way between what was the former conception of the disease in which the loss of innervation was assumed to be the entire trouble, and Sister Kenny's concept which assumes that spasm is the entire cause of trouble. Spasm certainly can cause three kinds of trouble. The first is muscle shortening and its restriction of the normal motion of the muscle. The second is that as a result of this spasticity there is apt to be incoordination in the proper function of muscles with substitution of one muscle for another. The third trouble to which Kenny calls attention is that a person forgets how to use a particular muscle when it is not used for an appreciable length of time. Sometimes it is not used because of pain. Sometimes it is not used because it has been immobilized. Sometimes it is not used because there was temporary loss of innervation.

DR. WHEELER: Dr. Gold, in the pharmacologist's huge armamentarium is there not some drug used to relieve spasm? How about curare? If the object of the treatment is to relieve spasm, why could not that be used?

DR. HARRY GOLD: But we may also have partly paralyzed muscles at the same time, and there is the possibility of weakening those further while relieving the spasm in the others. As for curare, in spastic muscle disorders it has been

used in intramuscular or intravenous doses of about 25 mg., and it has been stated that spasm in muscles may be relieved by doses that do not affect normal muscles appreciably. The potency of the drug is variable and is not well established.

There is a drug which crossed my mind in relation to the troublesome hypersecretions of the bulbar cases. Why don't you try to dry up the secretions by means of atropine?

DR. STIMSON: Some people advocate it. We don't like it at the Willard Parker Hospital. It makes the secretion sticky and the stickiness seems to be worse than the profuseness.

I would like to ask what Dr. Gold has to say about the hydrodynamics of poliomyelitis. What could one use systemically in these patients for the edema of the central nervous system?

DR. GOLD: There are, of course, the mercurial and xanthine diuretics which are effective dehydrating agents. I don't know whether they would do any good here.

DR. STIMSON: In this connection, I might mention another complication in patients with very marked bulbar trouble, namely, the difficulty they have in emptying the bowel and bladder. We have to resort to catheterization and enemata sometimes for several days.

DR. WHEELER: The hypertonic fluids which you suggested for the early treatment would also have the effect of drawing water out of the central nervous system, which would then pass out in the urine.

DR. HANSSON: I would like to ask Dr. Gold another question, if I may. There have been people advocating prostigmine for the relief of spasticity. Is there any scientific evidence for such a thing?

DR. GOLD: Prostigmine has been utilized for both the muscular weakness of myasthenia gravis and for the relief of muscular spasm. I am not sure that the evidence is very good. Dr. Cattell, do you have any notion about that?

DR. CATTELL: I don't think prostigmine could be used. It increases the action of acetylcholine formed in the body, and acetylcholine does block transmission. But that is true only with large doses which are beyond the therapeutic range.

DR. GOLD: When an animal is severely poisoned by a dose of prostigmine, if it is not given so rapidly as to cause central paralysis, very little response follows stimulation of the peripheral nerves. For example, if the phrenic nerve is stimulated, there is almost no response of the diaphragm. This peripheral action of prostigmine blocks conduction only when given in very large doses. Incidentally, quinine in rather small doses has been used to block conduction in certain types of spasticity of muscles. There was a report of its successful use in doses of 0.3 Gm. in patients with myatonia congenita.

Summary

DR. GOLD: We may now tie together the chief points brought out in the conference today. Poliomyelitis is a virus disease apparently acquired chiefly by way of the alimentary canal, the virus being passed out in the stool. The barrier to systemic invasion may be broken down by such factors as tonsillectomy, chilling, or fatigue. In an epidemic there are many mild cases. During such periods, every minor illness should be suspected. A patient with a little headache or digestive disorder, if carefully examined, may show some muscular spasm or increased cells in the spinal fluid. The results of treatment are good, and reports of cures run as high as 90 per cent.

There is no specific remedy. Treatment falls into three categories—care of the acute phase in the hands of the pediatrician or internist, physiotherapy, and orthopedics.

Bed rest and expert nursing seem to be of foremost importance in the acute phase. The disease is likely to be more severe in those who have not had early rest. Hypertonic solutions of glucose are given intravenously in the hope of reducing the edema of the central nervous system.

Other measures are applied in relation to the special needs presented by the particular case. If there is difficulty in swallowing and the patient cannot take fluids by mouth, isotonic glucose solution is given intravenously. Pain in spastic muscles is controlled by suitable position and support by means of pillows so as to prevent stretching of the involved muscles. Spasm in muscles and its attending discomfort is relieved by hot compresses. The technic of applying these packs as employed by Sister Kenny seems to be particularly successful. The profuse mucus secretion in the nasopharynx in some bulbar cases is managed by appropriate drainage and aspiration. Atropine is not satisfactory, because it renders the mucus too sticky.

Respiratory difficulties are managed in various ways, depending on the mechanism. Oxygen is used freely, preferably by the nasal catheter. Drugs seem to be without value in these cases. In some spinal cases the relief of respiratory muscle spasm by hot packs establishes satisfactory respiration. In bulbar cases with profuse mucus, proper suction is sufficient to remove the cyanosis and establish normal ventilation. However, in some bulbar cases with respiratory-center involvement, and in spinal cases with muscular paralysis the respirator becomes necessary. It should be used sparingly, and only after all measures to maintain spontaneous breathing

have failed, since the respirator tends to suppress the establishment of normal mechanisms of breathing.

From the standpoint of the physiotherapy of poliomyelitis practices have differed. Until fairly recently, immobilization was popular. Now movement of the affected parts as early as possible is considered the preferable treatment. The paralyzed muscle was formerly regarded as the essential element of the disease. Sister Kenny has popularized the notion that the primary trouble in the disease is the spastic muscle. It gives rise to inhibition of its antagonist, and the train of muscular difficulties associated with this disease. She is responsible for important recent trends in the therapy of poliomyelitis, namely, the abandonment of early immobilization, the free use of the hot pack for the spastic muscles, and methods of muscle re-education.

The possible value of curare, prostigmine, and quinine for the relief of spasm was considered.

TWENTY YEARS' PROGRESS IN CHILD HEALTH

youngsters 5 to 14 years, insured in the Industrial Department of the Metropolitan Life Insurance Company, the death rate from all causes combined was cut 65 per cent between 1922–1923 and 1942–1943.

There has obviously been a great saving of young lives. For every two children who die under current mortality conditions, more than five would have died if the death rate of only two decades ago had continued to prevail. This marked improvement has benefited each color and sex group, al-

girls at ages 5 to 14 is
point of 0.6 per 1,000.

duction of no less than 93 per cent in the past twenty years for the children of grade school age.

treatment have been available for the entire period. At present, the death rate from diphtheria among the insured children of elementary school age is only 1/28th what it was two decades ago; as a result, the disease has been reduced from one of the principal causes of death at these ages, to one of wholly minor importance. Notable progress has also been achieved with regard to the other three diseases in this group, the decreases in mortality during the period amounting to nearly 90 per cent for scarlet fever and 80 per cent for both whooping cough and measles.

The rapid downward trend in the death rates from tuberculosis and pneumonia has reduced the death rate from these diseases among children by fully three fourths in twenty years. The decline in the toll from pneumonia at ages 5 to 14, as for all other periods of life, was accelerated following 1937, when chemotherapy began to be used on a wide scale. The efforts to curt been greatly aided by t cases complicated with of 70 per cent in the mortality from appendicitis among these young policyholders reflects also advances in surgical technic and the success of the educational campaign, in which the public has been urged to seek medical care without delay and to avoid the use of laxatives in the case of abdominal pain.

Rheumatic fever and organic heart disease, which latter at these ages is very largely due to rheumatic fever, recorded a drop of three-fifths in mortality over the twenty-year period. Nevertheless, rheumatic fever now ranks first among the diseases causing death at ages 5 to 14, and as the aftermath of

decrease of 52 per cent, made an even more favorable record than accidents as a whole. This is the more remarkable, when it is considered that the death rate from automobile accidents in the total population is currently not very different from what it was twenty years ago. Especially noteworthy also are reductions of more than 70 per cent in the death rate from burns and scalds, the leading class of fata per ce Safety share t though the greater attention given to the care of young children have also played a large role.

There can be no doubt that the efforts to make child life healthier and safer have been eminently ges have that the Future ment of measures to prevent or control rheumatic fever, upon wiping out what remains of tuberculosis at these ages, and upon accident prevention.—*Statistical Bulletin, Jan., 1945*

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Annual Report

Medical Society of the State of New York

1943—1944

Report of the President

To the House of Delegates; Gentlemen:

In the month of May, 1944, it became my honored privilege to ascend to the high office of your Presidency. On that occasion I was much impressed with the responsibility that was mine. The traditional and treasured loyalty of great constructive personalities in the history of our New York State Medical Society invite into the mind of the new standard-bearer feelings of fearful inadequacy. Yet, withal, there is the command and the challenge to carry on.

Then, as now, the most important task of the day was the winning of the war. We discussed it, hopefully for early victory, and not without great pride in our membership engaged in the military services. From assignment and procurement to postwar rehabilitation—all in all, a vast program—so that we might the more fully instill hope and cheer and merciful preservation of the mind and body into this great sad epoch of modern civilization. The subject is of immeasurable magnitude. We shall touch on it frequently during the many years to come. There is an appalling similarity in the price paid for failure to prevent war and the failure to prevent disease. It begins to dawn on us that there is a price paid in the destruction of the happiness of a people should freedom become just a word. These likewise have a parallel in medicine.

In the emergency of war we have been requested to postpone the important Annual Meeting of the House of Delegates. This action will make it necessary to revise and supplement our usual annual reports for the House, when it shall have the opportunity to meet. There are several items of importance that I shall endeavor to touch upon again in a later report. All of them I mark as portraying definite advancement in our plans for the public service and the enhancement of cordial public relations.

We have suffered much from losses not alone confined to the blighting ravages of the great conflict. Our faithful Peter Irving passed away on December 28, 1944. As Secretary and General Manager he performed a most difficult task incomparably well. As a man of character, as a student and practitioner of the healing art, he was equally marked with singular renown. I knew Dr. Irving well. He did not worry much about himself, but he always hitched our Medical Society to a star to his last day. They didn't come any better than Peter.

Shortly before the death of the Secretary, our Society suffered greatly in the loss by death of the Assistant Secretary, Dr. Edward Podvin. Well versed in the affairs of organized medicine by long years of work in the State Society and his county society, Dr. Podvin became a mainstay to his fellow practitioners. Especially does the metropolitan area feel the loss of such an experienced and able servant.

In the summer of 1944 the Medical Society was signally honored by the selection of its executive officer, Dr. Joseph Lawrence, as Director of the Public Relations Bureau of the American Medical Association. This was a well-merited recognition of exceptional ability and unusual experience, but we had become so dependent on the cheerful and efficient solution Joe Lawrence had for so many of our troubles!

It is not easy—indeed, it is very nearly impossible—to replace such men. Only those who have actively joined in this endeavor can appreciate the difficulties. And yet the Council and Trustees have achieved the most unusual in the selection of Dr. Walter P. Anderton as Secretary, part time, and Dr. Roger B. Hannon as Executive Officer. These two are talented and gifted men of the highest character and professional standing.

In February, 1945, we added Mr. George P. Farrell as Director of the new Bureau of Medical Care Insurance. This is a very important position and I am high in the hope that Mr. Farrell will prove successful in a most difficult undertaking.

The Publication Committee, headed by Thomas M. Brennan, M.D., chairman, wisely managed for the immediate advancement of our NEW YORK STATE JOURNAL OF MEDICINE by inducing Dr. George W. Kosmak to become the managing editor. Dr. Kosmak makes a real sacrifice in putting himself so energetically into this work. He is a person experienced in editorial management, complemented immeasurably by his long and faithful service to the Society as a former treasurer, and now as a member of the Board of Trustees.

Our JOURNAL has much to do with publicity and public relations, but this is only a small part of the achievement in our publicity. In the past year the director of the Public Relations Bureau, Mr. Dwight Anderson, has put forth on a large scale a most constructive publicity program. It reached regularly our individual membership, county societies, and our district branch meetings; and, more important still, it made a wide and intelligent contact with the public itself. Its efforts were so directed that the *man in the street has become more and more familiar* with the high-minded principles of our New York State Medical Society. Mr. Anderson took on considerably more duties and responsibilities during the year and was our mainstay in carrying on during the vacancies occasioned by the loss of our important personnel.

The Workmen's Compensation Committee and the Board of Trustees have secured the full-time service of the director, Dr. David J. Kaliski. The work of the Bureau has progressed satisfactorily and there has been a much better understanding between it and the county compensation commit-

I mention the personnel noted above because of the essential changes of activity indicated. I am very deeply appreciative of the cooperation and support given our Society by its employed personnel in general and by all of the committees of our membership, who have worked so well under the most trying conditions of difficult transportation. The *esprit de corps* is wonderful, and I know of no better working organization anywhere than that which we have in our Medical Society. A special

paid and unpaid, we have now interested in New York State organized medicine is a great tribute to our aims and principles, and it is the best concrete illustration that the public appreciates that we are trying to do the right thing to the entire exclusion of unworthy selfish motives.

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this writing it appears that our legislators recognize that official license to practice the healing art must be dependent upon the high-standard requirements of the Medical Practice Act and is not to be confused with claims to cure, or even with public testimonials of cure. There has been much agitation for the relief of legislators and public officials constantly besieged with pressing demands by those already deriving a sizable cash income from the practice of the healing arts under the guise of cultism. Quite
are engaging
o continue to
where a basic
science requirement would give them the training and supervised experience necessary to practice medicine. I believe those who are favoring basic science legislation in this State are, perhaps unwittingly, but nevertheless effectively, placing a desirable weapon in the hands of those favoring cultist trends. No one thinks a first- or second-year student in a recognized college of medicine is qualified to practice the healing art, and I do not think any of our legislators would vote for the preferential treatment of such an untrained group. Medical schools and hospitals must meet the standard requirements of our Board of Regents before their graduates are entitled even to examination for licensure. The standards are set and the successful applicant is required to meet them. Pressure of groups not possess
be resisted. We
tion on remedial
public education i
this menace.

I place as our most important work the advancement of the medical knowledge of our practitioners. The enormous amount of work of our comprehensive postgraduate program is in the assuredly capable hands of the Committee on Public Health and Education. This committee has had many duties extending into various fields for the good of the public health. This year it has placed additional emphasis upon the subjects of rehabilitation, diagnostic centers an
for the welfare of
the military ser
are not by any means perfect, but they are placed on a temporary basis and for the time being are an expression of our desire to help the family here at home as much as we can.

The new Malpractice Committee has made a thorough study of s
their report sh
membership.
it goes far beyond the monetary protection afforded. It is a part of our program for good medicine and cordial public relations. I bespeak the participation of every member of our Society in our own group plan. The Public Relations and Economics Committee has spent much time on medical care problems and, with the subcommittee on medical care
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to encroach upon the field of the practice of medicine. It is unfortunate that some of our hospital superintendents have chosen to side with the insurance-plan representatives rather than cooperate fully with the medical staff working in their hospitals. This has directed keen attention to hospital procedures and, I feel, should inspire our medical men again to participate more actively in hospital management. The public—the patients in the hospital—need this personal interest of medicine. Our Public Relations and Economics Committee and the committee from the New York State Hospital Association have met several times, and from these meetings I am sure great good will come, not only to the hospitals and to the medical profession, but to the people of this State. The entire subject of medical care insurance is of nation-wide and even world-wide importance. In a special report I shall endeavor to discuss more fully the problems of providing adequate medical care to the people of this country.

The many activities of the Council and its committees will, of course, be of great interest to the House of Delegates. It has been decided that the Council, the Board of Trustees, and the various important committees of our Society shall make regular reports in suitable brief form to the component county societies. I have long been in favor of such a democratic step, and I am sure our profession will be much more effective for it. I offer no further comment for the present, except to say that one is really amazed that so many important men in medicine will give the time for the amount of work represented in the reports to your House of Delegates.

We are handicapped now because we do not know when the next House of Delegates meeting will take place. In the interim we shall be gaining additional information, and I beg indulgence to report further, even though I have completed my term in office. Most of the present officials of your Society need to continue in their positions until the Annual Meeting, and such vacancies as occur will be filled

Balance Sheet—December 31, 1944

ASSETS

GENERAL FUND		
CURRENT ASSETS		
Cash in banks and on hand		$183,324.87
Accounts Receivable—Advertisers	$ 3,061.80	
Others	217.40	
	$ 3,279.20	
Less: Reserve for Doubtful Accounts	288.20	2,991.00
Dues Receivable—Net, estimated		7,080.00
Securities—		
At Market Value (Cost $329,047.22)	$339,559.40	
Accrued Interest Receivable	9,701.34	349,260.74
Inventory of Paper Stock—at cost		2,345.60
		$545,002.21
OTHER ASSETS		
1941–1942 *Medical Directories*, 170	$ 319.60	
When Doctors are Rationed, 54	54.00	
	$ 373.60	
Prepaid Expenses	1,841.52	
Deposits	908.58	3,123.70
FURNITURE AND FIXTURES—at Nominal Value		2.00
		$548,127.91
ENDOWMENT FUNDS		
CASH IN BANK		$ 4,796.37
SECURITIES		
At Market Value (Cost $5,808.75)	$ 5,903.60	
Accrued Interest Receivable	27.09	5,930.69
		$ 10,727.06
TOTAL ASSETS		$558,854.97

LIABILITIES AND CAPITAL

GENERAL FUND		
CURRENT LIABILITIES		
Accounts Payable	$ 5,796.37	
Commission Payable on Advertising Sales	1,841.93	
Social Security, Federal and New York State Unemployment Insurance Taxes Payable	947.13	$ 8,585.43
DEFERRED INCOME		
Prepaid subscriptions to JOURNAL	$ 1,392.24	
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CAPITAL		
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A. Walter Suiter Lectureship Fund		4,212.77
		$ 10,727.06
TOTAL LIABILITIES AND CAPITAL		$558,854.97

CASH IN BANKS AND ON HAND
December 31, 1944

	Regular Funds	Investment Funds	Total
CHECKING ACCOUNTS			
Guaranty Trust Company	$134,848 66		$134,848 66
National City Bank of New York	4,971 84		4,971 84
The Chase National Bank	4,841 77	$7,964 94	12,806 71
	$144,662 27	$7,964 94	$152,627 21
SAVINGS ACCOUNTS			
Various Savings Banks	$ 30,063 82	$ 235 90	$ 30,299 72
PETTY CASH FUNDS—OFFICE	$ 397 94		$ 397 94
TOTAL	$175,124 03	$8,200 84	$183,324 87

ENDOWMENT FUNDS

	On Deposit Union Dime Savings Bank
Lucien Howe Prize Fund	$1,827 78
Merritt H Cash Prize Fund	806 55
A Walter Suter Lectureship Fund	2,162 04
	$4,796 37

SECURITIES

The investments of the Society (General Fund) may be summarized as follows

	At Cost
Bonds and Mortgages	$203,690 23
Stocks	125,356 99
TOTAL	$329,047 22

All of these securities are in the possession of the Chase National Bank as Custodian for the Trustees of the Medical Society of the State of New York

CONDENSED STATEMENT OF OPERATING INCOME AND EXPENSES FOR THE YEAR ENDED DECEMBER 31, 1944

OPERATING INCOME			
Members' Dues—Year 1944	$138,970 00		
Less Reserve	2,500 00		
	$136,470 00		
Less allocation to JOURNAL Circulation Income, as authorized by the Board of Trustees	17,446 00		
	$119,024 00		
Arrears	1,008 00		
	$120,032 00	$120,032 00	
Net Operating Income from JOURNAL	$ 30,341 67		
Plus allocation of dues	17,446 00	47,787 67	
Proceeds from *When Doctors Are Rationed*		$ 70	
Sales of 1941–1942 *Directories*		260 00	$168,088 37
OPERATING EXPENSES			
[illegible]		$ 43,194 84	
		20,315 94	
		13,671 63	
		20 45	
[illegible]		12,401 65	
		9,900 48	
		887 17	
		10,029 29	
		38 58	
		12,359 28	
		1,839 59	
		500 00	
		125 00	125,283 90
EXCESS OF OPERATING INCOME OVER EXPENSES			$ 42,804 47

Annual Report

Medical Society of the State of New York

1943—1944

Report of the President

To the House of Delegates; Gentlemen:

In the month of May, 1944, it became my honored privilege to ascend to the high office of your Presidency. On that occasion I was much impressed with the responsibility that was mine. The traditional and treasured loyalty of great constructive personalities in the history of our New York State Medical Society invite into the mind of the new standard-bearer feelings of fearful inadequacy. Yet, withal, there is the command and the challenge to carry on.

Then, as now, the most important task of the day was the winning of the war. We discussed it, hopefully for early victory, and not without great pride in our membership engaged in the military services. From assignment and procurement to postwar rehabilitation—all in all, a vast program—so that we might the more fully instill hope and cheer and merciful preservation of the mind and body into this great sad epoch of modern civilization. The subject is of immeasurable magnitude. We shall touch on it frequently during the many years to come. There is an appalling similarity in the price paid for failure to prevent war and the failure to prevent disease. It begins to dawn on us that there is a price paid in the destruction of the happiness of a people should freedom become just a word. These likewise have a parallel in medicine.

In the emergency of war we have been requested to postpone the important Annual Meeting of the House of Delegates. This action will make it necessary to revise and supplement our usual annual reports for the House, when it shall have the opportunity to meet. There are several items of importance that I shall endeavor to touch upon again in a later report. All of them I mark as portraying definite advancement in our plans for the public service and the enhancement of cordial public relations.

We have suffered much from losses not alone confined to the blighting ravages of the great conflict. Our faithful Peter Irving passed away on December 28, 1944. As Secretary and General Manager he performed a most difficult task incomparably well. As a man of character, as a student and practitioner of the healing art, he was equally marked with singular renown. I knew Dr. Irving well. He did not worry much about himself, but he always hitched our Medical Society to a star to his last day. They didn't come any better than Peter.

Shortly before the death of the Secretary, our Society suffered greatly in the loss by death of the Assistant Secretary, Dr. Edward Podvin. Well versed in the affairs of organized medicine by long years of work in the State Society and his county society, Dr. Podvin became a mainstay to his fellow practitioners. Especially does the metropolitan area feel the loss of such an experienced and able servant.

In the summer of 1944 the Medical Society was signally honored by the selection of its executive officer, Dr. Joseph Lawrence, as Director of the Public Relations Bureau of the American Medical Association. This was a well-merited recognition of exceptional ability and unusual experience, but we had become so dependent on the cheerful and efficient solution Joe Lawrence had for so many of our troubles!

It is not easy—indeed, it is very nearly impossible—to replace such men. Only those who have actively joined in this endeavor can appreciate the difficulties. And yet the Council and Trustees have achieved the most unusual in the selection of Dr. Walter P. Anderton as Secretary, part time, and Dr. Roger B. Hannon as Executive Officer. These two are talented and gifted men of the highest character and professional standing.

In February, 1945, we added Mr. George P. Farrell as Director of the new Bureau of Medical Care Insurance. This is a very important position and I am high in the hope that Mr. Farrell will prove successful in a most difficult undertaking.

The Publication Committee, headed by Thomas M. Brennan, M.D., chairman, wisely managed for the immediate advancement of our NEW YORK STATE JOURNAL OF MEDICINE by inducing Dr. George W. Kosmak to become the managing editor. Dr. Kosmak makes a real sacrifice in putting himself so energetically into this work. He is a person experienced in editorial management, complemented immeasurably by his long and faithful service to the Society as a former treasurer, and now as a member of the Board of Trustees.

Our JOURNAL has much to do with publicity and public relations, but this is only a small part of the achievement in our publicity. In the past year the director of the Public Relations Bureau, Mr. Dwight Anderson, has put forth on a large scale a most constructive publicity program. It reached regularly our individual membership, county societies, and our district branch meetings; and, more important still, it made a wide and intelligent contact with the public itself. Its efforts were so directed that the man in the street has become more and more familiar with the high-minded principles of our New York State Medical Society. Mr. Anderson took on considerably more duties and responsibilities during the year and was our mainstay in carrying on during the vacancies occasioned by the loss of our important personnel.

The Workmen's Compensation Committee and the Board of Trustees have secured the full-time service of the director, Dr David J Kalisk The work of the Bureau has progressed satisfactorily and there has been a much better understanding between it and the county compensation committees, the officials of the Division of Labor, and the public at large All of this redounds to the advantage of the working man and woman in the preservation of good health

I mention the personnel noted above because of the essential changes of activity indicated I am very deeply appreciative of the cooperation and support given our Society by its employed personnel in general and by all of the committees of our membership, who have worked so well under the most trying conditions of difficult transportation The *esprit de corps* is wonderful, and I know of no better working organization anywhere than that which we have in our Medical Society A special committee on office management and the revision of

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on the Medical Practice Act The Seelye-Brees bills and our exposition of their dangers to the public health have attracted popular attention At this writing it appears that our legislators recognize that official license to practice the healing art must be longer lent upon the high-standard requirements

besieged with pressing demands by those already deriving a sizable cash income from the practice of the healing arts under the guise of cultism Quite that they are engaging propose to continue to not see where a basic science requirement would give them the training and supervised experience necessary to practice medicine I believe those who are favoring basic science legislation in this State are, perhaps unwittingly, but nevertheless effectively, placing a desirable weapon in the hands of those favoring cultist trends No one thinks a first- or second-year student in a recognized college of medicine is qualified to practice the healing art, and I do not think any of our legislators would vote for the preferential treatment of such an untrained group Medical schools and hospitals must meet the standard requirements of our Board of Regents before their graduates are entitled even to examination for licensure The standards are set and the successful applicant is required to meet them Pressure of groups not

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membership This insurance is a mutual affair and it goes far beyond the monetary protection afforded It is a part of our program for good medicine and cordial public relations I bespeak the participation of every member of our Society in our own group plan The Public Relations and Economics Committee has spent much time on medical care problems and, with the subcommittee on medical care new time having difficulty with hospitalization plans seeking to encroach upon the field of the practice of medicine It is unfortunate that some of our hospital superintendents have chosen to side with the insurance-plan representatives rather than cooperate fully with the medical staff working in their hospitals This has directed keen attention to hos-

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The many activities of the Council and its committees will, of course, be of great interest to the House of Delegates It has been decided that the Council, the Board of Trustees, and the various important committees of our Society shall make regular reports in suitable brief form to the component county societies I have long been in favor re our pro- I offer no to say that one is really amazed that so many important men in medicine will give the time for the amount of work represented in the reports to your House of Delegates

We are har when the ne take place tional information, and I beg indulgence to report further, even though I have completed my term in office Most of the present officials of your Society need to continue in their positions until the Annual Meeting, and such vacancies as occur will be filled

by the Council. However, in the case of the President, his successor, as President-elect, has already been selected by the House of Delegates. Therefore, the present President-elect should assume the office of the presidency on the date that was set for this event at the Annual Meeting, namely, May 1, 1945.

I am deeply appreciative of the opportunity I have had to serve as President of the Medical Society of the State of New York. I have the greatest confidence in our advancement in the public esteem. Firmly and openly we work for the health benefits of our people and as we gain experience in our public relations we shall be the more helpful to serve as practicing physicians.

HERBERT H. BAUCKUS, M.D., *President*
March 19, 1945

Report of the Secretary

To the House of Delegates; Gentlemen:

It is with a mingled individual sense of regret and appreciation that this report is rendered. My regret is deep as I am here only because of the death of an outstanding, true friend who had proved himself an irreplaceable executive of our Society. My appreciation is also deep because of the honor the Council has paid me in allowing me to undertake the duties of your Secretary.

Membership.—The total number of members of the Medical Society of the State of New York on December 31, 1944, was 18,941. We were joined by 663 new members during the past year; also, 5,141 members are in the service of our country. The honor counties (none of whose members failed to pay their dues in 1944) include Broome, Cattaraugus, Chemung, Chenango, Clinton, Columbia, Delaware, Essex, Franklin, Fulton, Lewis, Montgomery, Ontario, Orange, Putnam, Queens, Saratoga, Schoharie, Schuyler, Seneca, Steuben, Tioga, Tompkins, and Wyoming.

Changes in Management.—Owing to deaths and resignation, changes have been necessary in the mechanism and personnel of management. Dr. Robert R. Hannon has become Executive Officer in Albany, replacing Dr. Joseph S. Lawrence, who resigned to accept the position of Director of Council of Medical Service and Public Relations of the American Medical Association in Washington, D.C. After Dr. Edward C. Podvin's death, Dr. George W. Kosmak was elected by the Council as Assistant Secretary. Mr. Dwight Anderson has been given the title of Executive Secretary. With the able assistance of Miss Doris K. Dougherty as Administrative Assistant, he has improved the office management. He has broadened the scope of our Public Relations Bureau as evidenced by activities in regard to the chiropractic bill, and he has continued to improve the quantity and quality of advertisements in the JOURNAL. Your Secretary has taken care of the professional correspondence, has attended meetings of the Council, Trustees, and most committees in an effort to coordinate the workings of the Society. Dr. George W. Kosmak has been appointed Managing Editor, and Dr. Laurance D. Redway, Literary and Assistant Managing Editor, of the JOURNAL, by the Council. Because of the scope of his duties Dr. David J. Kaliski has accepted the full-time post of Director of the Workmen's Compensation Bureau. A new division of work has been established—Bureau of Medical Care Insurance—of which Mr. George P. Farrell, formerly Supervisor of Field Services of the Western New York Hospital Corporation of Buffalo, took charge early in February.

Directory.—We regret to report that because of the national shortage of paper and the difficulty in engaging personnel, it has been necessary again to postpone publication of the directory.

Council.—As detailed elsewhere, the Council has continued executive activities of the Society between meetings of the House of Delegates. In September, in cooperation with the Hospital Association of the State of New York, a joint committee of six members was formed to consider common problems. Our members are Dr. Carlton E. Wertz, *chairman*, and Drs. Walter W. Mott and J. Stanley Kenney. The Hospital Association of New York is represented by Mr. John F. McCormack, *chairman*, Mr. Carl P. Wright, and Mr. Moir P. Tanney.

The Reorganization Committee, Dr. O. W. H. Mitchell, *chairman*, and Drs. Thomas M. Brennan, Thomas A. McGoldrick, Nathan B. Van Etten, Floyd S. Winslow, George W. Kosmak, and Kirby Dwight, was appointed in October. These gentlemen have been studying changes in the Constitution and Bylaws with a view toward improving efficiency and management.

In December your Council decided upon two new subcommittees of the Public Health and Education Committee. The Subcommittee on Laboratory Service and Medical Care consists of Dr. F. Leslie Sullivan, *chairman*, and Drs. Kenneth F. Bott, Stephen Rumble Monteith, Scott Lord Smith, Walter S. Thomas, Ivan N. Peterson, George A. Marsden, Peter J. Di Natale, and Dan Mellen. The Subcommittee on Cancer consists of Dr. Ralph T. B. Todd, *chairman*, and Drs. James M. Flynn, Clyde L. Randall, Victor C. Jacobsen, and Frank E. Adair.

On account of a new Federal law the Subcommittee on Rehabilitation was selected to act under the Public Health and Education Committee. Its members are Dr. Oliver W. H. Mitchell, *chairman*, Drs. Edward R. Cunniffe, Ralph T. B. Todd, Charles M. Allaben, and Conrad Berens. Also in January the Council elected Dr. Scott Lord Smith as next ranking alternate to fill the vacancy caused by Dr. Louis H. Bauer's resignation as delegate to the American Medical Association. Dr. Bauer resigned because he had been elevated to the office of Trustee of the American Medical Association. Dr. Clarence G. Bandler and Dr. Emily D. Barringer, next ranking alternates, were elected in place of Drs. William A. Krieger and Edward C. Podvin, deceased. Upon recommendation of Dr. Walter S. McClellan, chairman of the Session on Physical Therapy, the name of this Session was changed to Session on Physical Medicine, on December 14, 1944.

During the past year, as a result of nominations from your Council, Dr. Alfred Stillman, 2nd, and Dr. Leander H. Shearer have been appointed members of the Medical Grievance Committee, and Dr. Norman S. Moore, Dr. Laurance D. Redway, and Dr. W. P. Anderton were appointed members of the

Nurse Advisory Council of the New York State Education Department, through resolutions of the Board of Regents.

Convention.—At the behest of the United States Government the scientific sessions of our 1945 convention were canceled, and the meeting of the House of Delegates postponed.

Comment.—As a newcomer in your executive household, allow me to state my admiration for the efficiency and scope of the work of your Council, Trustees, and Committees. I appreciate this opportunity to record my thanks for the patience, guidance, and cooperation which I have experienced in my endeavors as your Secretary.

Respectfully submitted,
W. P. ANDERTON, M.D., *Secretary*

February 21, 1945

Report of the Treasurer

To the House of Delegates; Gentlemen:

The financial status of the Society is shown on the following pages by excerpts from the annual report of our Auditors, Messrs. J. K. Lasser and Company, for the year 1944.

During the year there has been an increase of $77,464 in our surplus balance, of which about $19,000 represents appreciation in the market value of our securities.

Remission of dues for our members in the uniformed forces of the United States amounted to $47,240.

There has been an income from our securities and bank balances of about $14,000, and this includes a small gain on the sale of securities.

The remaining $44,000 comes from an excess of income over operating expenses. By far the greatest factor in giving this favorable balance is the operating balance of our JOURNAL.

The net surplus of receipts over expenditures of the JOURNAL is a little more than $30,000. In 1943 this net surplus was $6,000, and that was the first time that there had been a net surplus.

Going back three years to 1941, there was a net cost of $15,000, a difference of about $45,000.

Thus the improvement in the balance sheet of the JOURNAL has almost completely compensated for the loss of revenue from the remission of dues to our members in the Service.

Also, the Medical Expense Insurance Bureau,

There is one point of special interest which is not shown in the auditor's report, but which should be brought to your attention. By direction of the Board of Trustees the net surplus of the JOURNAL, that is, the total surplus minus the one dollar per member subscription price allocated to circulation income, has been placed in a reserve fund for future needs of the JOURNAL. The reason for this action is that the JOURNAL is subject to most of the financial hazards that are inherent in any publishing business. Everything is favorable at the present time, but the times are not normal, and no one can see into the future.

The market is now good for the sale of advertising space, but this is probably a temporary wartime condition. In the near future it may be more difficult to sell this space and the JOURNAL's income may be cut sharply—how sharply we do not know.

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per cent (which is quite possible), it is readily seen that there would be a net deficit instead of a net surplus. It is for this reason that it has been felt that a special reserve for the JOURNAL should be established so that the surpluses earned in good years might be used to offset the deficits suffered in bad years, without disturbing the rest of the economy of the Society.

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Respectfully submitted,
KIRBY DWIGHT, M.D., *Treasurer*

March 13, 1945

Auditors' Statement

We
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date, and have reviewed the system of internal control and the accounting procedures of the Society and, without making a detailed audit of transactions, have examined or tested accounting records of the Society and other supporting evidence by methods

fairly the position of the Society at December 31, 1944, and the results of its operations for the year ended that date.

Respectfully submitted,
J. K. LASSER & CO.
Accountants & Auditors

March 5, 1945

Balance Sheet—December 31, 1944

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CURRENT ASSETS		
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CHECKING ACCOUNTS			
Guaranty Trust Company	$134,848 66		$134,848 66
National City Bank of New York	4 971 84		4 971 84
The Chase National Bank	4,841 77	$7,964 94	12 806 71
	$144,662 27	$7,964 94	$152,627 21
SAVINGS ACCOUNTS			
Various Savings Banks	$ 30 063 82	$ 235 90	$ 30,299 72
PETTY CASH FUNDS—OFFICE	$ 397 94		$ 397 94
TOTAL	$175 124 03	$8 200 84	$183,324 87

ENDOWMENT FUNDS

	On Deposit Union Dime Savings Bank
Lucien Howe Prize Fund	$1,827 78
Merritt H Cash Prize Fund	806 55
A Walter Suter Lectureship Fund	2,162 04
	$4,796 37

SECURITIES

The investments of the Society (General Fund) may be summarized as follows

	At Cost
Bonds and Mortgages	$203,690 23
Stocks	125 356 99
TOTAL	$329 047 22

All of these securities are in the possession of the Chase National Bank as Custodian for the Trustees of the Medical Society of the State of New York

CONDENSED STATEMENT OF OPERATING INCOME AND EXPENSES FOR THE YEAR ENDED DECEMBER 31, 1944

OPERATING INCOME			
Members' Dues—Year 1944	$138 970 00		
Less Reserve	2,500 00		
	$136,470 00		
Less allocation to JOURNAL Circulation Income, as authorized by the Board of Trustees	17,446 00		
	$119 024 00		
Arrears	1,008 00		
	$120 032 00	$120,032 00	
Net Operating Income from JOURNAL	$ 30 341 67		
Plus allocation of dues	17,446 00	47,787 67	
Proceeds from *When Doctors Are Rationed*		8 70	
Sales of 1941–1942 *Directories*		260 00	$168,088 37
OPERATING EXPENSES			
Administrative, New York Office		$ 43,194 84	
Public Relations Bureau		20 315 94	
Legislative Bureau, Albany		13,671 63	
1941–1942 *Directories*		20 45	
[illegible]		12,401 65	
[illegible]		9,900 48	
[illegible]		887 17	
[illegible]		10,029 29	
Medical Expense Insurance Bureau		38 58	
Scientific Activities		12,359 28	
District Branches		1,839 59	
Pension—L D Baldwin, deceased		500 00	
Advance for travel—(receivable from employee)		125 00	125,283 90
EXCESS OF OPERATING INCOME OVER EXPENSES			$ 42,804 47

ANALYSIS OF FINANCIAL INCOME, EXPENSE, AND CAPITAL FOR THE YEAR ENDED DECEMBER 31, 1944

	General Fund	Lucien Howe Prize Fund	Merritt H. Cash Prize Fund	A. W. Suiter Lectureship Fund
JANUARY 1, 1944 BALANCE	$443,172.92	$4,177.87	$1,862.71	$3,593.82
Additions—				
Excess of Operating Income over Operating Expenses	42,804.47			
Interest on Bank Balances	458.99	25.96	11.56	30.04
Income from Securities	12,963.31	102.50	35.00	100.00
Contribution received				86.51
Appreciation in Market Value of Securities Owned	18,817.87	273.07	25.62	452.40
Profit from Sales of Securities	995.63			
Excess Reserve—1943, for Dues Remissions	1,960.00			
	$521,173.19	$4,579.40	$1,934.89	$4,262.77
Deductions—				
Custodian and Investment Service Fees	536.35			
Honorarium to E. L. Howes				50.00
DECEMBER 31, 1944 BALANCE	$520,636.84	$4,579.40	$1,934.89	$4,212.77

Report of the Council

To the House of Delegates; Gentlemen:

Your Council has the honor to report on its executive and administrative management of the affairs of the Society in the period following your last meeting on May 8–11, 1944. The various matters that came before it, actions thereon, and recommendations are here presented in successive "Parts" of this report.

PART I

Postgraduate Education

The Council Committee on Public Health and Education arranges for instruction in a wide variety of subjects. Speakers are provided by the Committee for meetings of county medical societies, hospital staffs, and other medical groups. This program is made available through the combined efforts of the faculties of the medical schools and research institutions, the State Department of Health, the Dental Society of the State of New York, the Division of Industrial Hygiene of the New York State Department of Labor, the Medical Society of the State of New York, and several other organizations and associations.

A considerable part of the activities of the Committee is presented in cooperation with the New York State Department of Health. The Medical Society of the State of New York pays the traveling expenses of the speakers and the honoraria for all speakers are paid by the Medical Society of the State of New York or the New York State Department of Health. Arrangements may be made for courses of lectures and, in addition, many speakers on special subjects are provided for single lectures.

The Committee prepares and distributes the *Course Outline Book*, which lists subjects and speakers available. The *Course Outline Book* is revised annually.

In May, 1944, letters were sent to all physicians who had arranged courses of instruction for inclusion in the *Course Outline Book* requesting them to make any changes in subjects or speakers they desired.

On July 27, 1944, in New York City, the Council Committee on Public Health and Education conferred with the State Commissioner of Health, the Assistant Commissioner for Medical Administration, the Assistant Commissioner for Local Health Administration, and several Directors of various divisions of the New York State Department of Health, and the Director of the Division of Industrial Hygiene of the New York State Department of Labor to review the activities of the Committee in the field of postgraduate medical education for the year and to discuss plans for the coming year. Also present at this session were the chairmen of the Subcommittees of the Council Committee on Public Health and Education and officers of the Medical Society of the State of New York. To acquaint the group present with the accomplishments of the Committee in the field of postgraduate education, data was distributed. This material showed the counties in which instruction was presented, the number of lectures given, and the subjects and percentage of attendance at meetings from May 1, 1943, to May 1, 1944. The Committee expressed the appreciation of the Medical Society of the State of New York to

the New York State Department of Health for not only the cooperation of the Department in developing programs, but also for the financial assistance received.

Following this meeting the material for the 1944–1945 *Course* [illegible] submitted to [illegible]-nine announcements, including courses of lectures, Teaching Day programs, and single lectures on special subjects. In addition to the instruction listed in the *Course Outline Book* last year, the Committee ar-

[illegible]

Health Commissioners, physicians who arranged courses in the *Course Outline Book*, d[illegible]ted States, librarians [illegible] of New York, secr[illegible] in the United States, executive health officers of the various states, members of the New York State Board of Regents, New [illegible] Education and Director

[illegible]

sociation, Surgeon General of the United States Public Health Service, New York State Commissioner of [illegible] New York [illegible] representa[illegible] Company [illegible] Paralysis.

Arrangements for postgraduate instruction, presented as a series of lectures or as single lectures on [illegible] for twenty-seven county [illegible]owing counties have had this year:

County	Instruction	No. Lectures
Broome	Nutrition	1
	Penicillin Therapy	1
	Gynecology	1
	Dermatology	1
Cattaraugus	Penicillin Therapy	1
Cayuga	Penicillin Therapy	1
Chenango	Penicillin and Sulfonamide Therapy	1
Clinton	Penicillin Therapy	1
	Penicillin Therapy	1
	General Medicine	1
	Industrial Health	1
Cortland	Home and Farm Accidents	1
	Sulfonamide Therapy	1
	Obstetrics	1
	Meningitis	1
Delaware	Penicillin Therapy	1
Erie	Rheumatic Fever—Rheumatic Heart Disease	1
	General Medicine	3
	Gynecology	1
Franklin	Tropical Medicine	1
	Dermatology	1
	Penicillin Therapy	1
(Saranac Lake Medical Society)	Obstetrics	1
	General Medicine	2
	Meningitis	1
	Tropical Medicine	1
	Cancer	1
	Psychiatry	1
	Tropical Medicine	2
Greene	Penicillin Therapy	1
	Meningitis	1
	General Medicine	3
Herkimer	Penicillin Therapy	1
Jefferson	Tropical Medicine	1
	Psychiatry	1
	General Medicine	2
	Pediatrics	1
	Sulfonamide Therapy	1
	Penicillin Therapy	1
Madison	General Medicine	1
	War Medicine and Surgery	1
Montgomery	Penicillin Therapy	1
Nassau	Penicillin Therapy	1
	General Medicine	1
Ontario	Gynecology	1
	Obstetrics	1
Otsego	Neurology	1
	General Medicine	1
	General Medicine	1
	Sulfonamide Therapy	1
St. Lawrence	Penicillin Therapy	1
	Orthopedics	1
	Tropical Medicine	2
Seneca	Dermatology	1
Steuben	General Medicine	1
Suffolk	Poliomyelitis	1
Sullivan	Traumatic Surgery	7
Tioga	General Medicine	3
	Rheumatic Fever—Rheumatic Heart Disease	1
	Syphilis	1
Tompkins	Penicillin Therapy	1
	Tropical Medicine	1
Ulster	General Medicine	2
Warren	Penicillin Therapy	1
Westchester	Penicillin Therapy	1

Regional Meetings and Teaching Days.—For [illegible] were held. The Committee arranged for speakers and for printing and distribution of programs to county medical societies, medical schools, hospitals, the NEW YORK STATE JOURNAL OF MEDICINE, the *Journal of the American Medical Association*, and [illegible] is a list of county [illegible]ching Days have

Instruction	No. Lectures
Poliomyelitis	4
Poliomyelitis	4
Poliomyelitis	3
Poliomyelitis	3
*Cancer	4
Poliomyelitis	4
Poliomyelitis	3

eca, Wayne, Yates Counties		
County—Nassau Region—(Not Regional)	Poliomyelitis	2
County—Onondaga Region—Cayuga, Cortland, Madison, Oneida, Onondaga, Oswego Counties	Poliomyelitis	4
County—Onondaga Region—Cayuga, Cortland, Onondaga, Oswego Counties	Rheumatic Fever—Rheumatic Heart Disease	4
County—Onondaga Region—Adjacent Counties	*Cancer	4
County—Otsego Region—Broome, Chenango, Delaware, Otsego, Sullivan, Tioga Counties	Poliomyelitis	3
County—Saratoga Region—Fulton, Montgomery, Saratoga, Schenectady, Warren, Washington Counties	*Cancer	4
County—Tompkins Region—Seneca, Schuyler, Tompkins, Cortland, Chemung, Tioga Counties	*Cancer	4

The Committee arranged for postgraduate instruction to be presented in thirty-two counties with a total of one hundred and thirty-six lectures.

Public health matters receiving particular emphasis from the New York State Department of Health and the Medical Society of the State of New York this year have been: cancer, gynecology, home and farm accidents, industrial health, meningitis, nutrition, obstetrics, orthopedics, pediatrics, penicillin therapy, plasma therapy, poliomyelitis, rheumatic fever—rheumatic heart disease, sulfonamide therapy, syphilis, tropical medicine, tuberculosis, virus diseases, and war medicine and surgery.

PART II

Maternal and Child Welfare

Maternal Welfare.—The Emergency Maternity and Infant Care Program received considerable attention at the Annual Meeting of the House of Delegates held in New York City in May, 1944. Among the features of the program, as presented by the Children's Bureau, which the Council Committees had considered was that of recognition of extra services of the qualified specialists and the compensation in keeping with such services. That portion of the Report of the Council Committees as submitted to the House of Delegates reads as follows:

> "4. The plan provides for additional fees where the services of a qualified consultant are required, but makes no provision for recognizing the extra services of a qualified obstetrician or pediatrician where such physician has undertaken the basic maternity or sick-infant care of a patient, under the plan."

The Reference Committee on Report of Council—Part II: Maternal and Child Welfare commented as follows:

> "We recommend the passage of the Council Committees' proposal that some system should be devised for recognition of extra services of the qualified specialist and for compensating him in keeping with the extra services rendered."

In accordance with the recommendation of the Council Committees and the action of the House of Delegates, the New York State Commissioner of Health requested the Children's Bureau to amend their regulations in keeping with this action. Recently the Children's Bureau acceded to this request by allowing an increase in fees up to 50 per cent for qualified specialists. The Council Committee on Public Health and Education and the Subcommittees on Maternal and Child Welfare were notified of this action by the New York State Commissioner of Health. These Committees conferred with representatives of the New York State Department of Health on October 11 and 26, 1944, in New York City to formulate a plan of procedure for establishing a list of qualified specialists in New York State.

The following plan was submitted to the Council of the Medical Society of the State of New York at its meeting on November 9, 1944, by the New York State Department of Health:

In order to apply the provisions of amendment 8, which provides for differential fees for qualified specialists, it will be necessary that the E.M.I.C. Bureau possess a list of physicians in New York State who would be considered specialists in a particular branch of medicine, i.e., obstetrics, pediatrics, surgery, radiology, orthopedic surgery, internal medicine, dermatology, plastic surgery, ophthalmology, otolaryngology, urology, psychiatry, and neurology. Such a roster or panel of qualified specialists would be comprised of physicians meeting the following requirements:

(*a*) Physicians who have been certified by their respective specialty boards;

(*b*) Physicians who are not members of a specialty board; these must present evidence that their training and experience meet the requirements of training and experience for admission to the examinations of such boards or that they have had equivalent training and experience in their specialty which, in the opinion of the State Commissioner of Health, with the advice of an advisory board, would qualify them as specialists.

The following procedures are to be used in connection with the establishment of a list of specialists as defined under (*b*) above:

1. Formal notification of the State Medical Society by the State Health Commissioner of necessity for listing of qualified specialists.
2. Notification of county medical societies regarding proposed plan by officials of State Medical Society.
3. Each county medical society would establish a special committee for consideration of qualifications of physicians to be considered as specialists in the E.M.I.C. Program. (In so far as is practicable the members of this special committee should be diplomates of various specialty boards.)
4. Preparation of suitable application forms by the State Health Departments to be used by interested physicians. (Application forms may be obtained from county medical societies and district health officers.)
5. Suitable publicity regarding the proposed plan in:
    1. The New York State Journal of Medicine
    2. *Health News*
    3. County Medical Society bulletins

Publicity will specifically (*a*) suggest that interested physicians submit their qualifications for consideration by their respective county medical society committees, and (*b*) list standards which will be used

* Traveling expenses and honoraria of speakers and printing of programs provided by the New York State Department of Health.

in evaluating eligibility of applicants for specialist status.

6. The physician will submit the completed application to the chairman of the special committee on qualifications of the county medical society or to the district health officer for transmittal to the

Health for the final decision.

7. The individual physicians will be notified of

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rred by the State

Commissioner of Health, for recommendation and advice, to the appropriate subcommittee of the State Medical Society.

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Department; (*b*) submitted to the respective district health officers;

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(It was decided that

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of physicians would b

Health Department and representatives of the five counties in the metropolitan area.)

After much discussion of the plan, including the reading of the action taken by the House of Delegates at its 1944 meeting, the following motion was passed by the Council on November 9, 1944:

> "Approval of the whole E.M.I.C. Program and this report of the procedure regarding the differential in fees between the specialists and general practitioners shall apply only for the duration of the emergency and six months thereafter."

The following letter was prepared by the Council Committee on Public Health and Education, the Subcommittees on Maternal Welfare and Child Welfare, representatives of the New York State Department of Health and the City of New York Department of Health, and mailed from the office of the Council Committee on Public Health and Education in December, 1944, to the presidents of county medical societies not including the counties in New York City:

"Dear Doctor:

"At the Annual Meeting of the House of Delegates of the Medical Society of the State of New York held in New York City, Tuesday, May 9, 1944, the Emergency Maternity and Infant Care

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the services of a qualified consultant are required, but names no provision for recognizing the extra services of a qualified obstetrician or pediatrician where such physician has undertaken the basic maternity or sick infant care o a patient under the plan."

"The Reference Committee commented as follows

"We recommend the passage of the Counci Committees' proposal that some system shoul be devised for recognition or extra services o the qualified specialist and for compensatin him in keeping with the extra services rendered.'

"This part of the report was adopted along witl the rest of the report of the Reference Committee

"In accordance with the recommendation of the Council Committees and the action of the Hous of Delegates, Commissioner Godfrey, of the New York State Department of Health, requested th Children's Bureau to amend their regulations i keeping with this action. Recently the Children' Bureau acceded to this request by allowing a increase in fees up to 50 per cent for qualifie specialists. The Council Committee on Publi Health and Education of the Medical Society o the State of New York and the Subcommittee on Maternal and Child Welfare were notified b Commissioner Godfrey of this action. Thes Committees have conferred with Commissione Godfrey and other representatives of the Ne York State Department of Health and a plan o procedure was agreed upon. This plan was sub mitted to the Council of the Medical Society of th State of New York and approved at its meetin on Thursday, November 9, 1944.

"It therefore becomes necessary to have eac county medical society assist the State Depart ment of Health (the operating agency of th E.M.I.C. Program) by having a special com mittee list the members of their organization wh are considered specialists. Such a roster of special ists will be comprised of physicians meeting th following requirements:

"(*a*) Physicians who have been certified by thei respective specialty boards;

"(*b*) Physicians who are not members of specialty board; these must present evidence tha their training and experience meet the require ments of training and experience for admission t the examinations of such boards or that they hav had equivalent training and experience in thei specialty which, in the opinion of the State Com missioner of Health, with the advice of an ad visory bo sts.

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"The roster of approved specialists will be on record in the New York State Department of Health, the district health offices, and the office of the secretary of each county medical society.

"Your cooperation and assistance are greatly appreciated.

Sincerely yours,

O. W. H. MITCHELL, M.D., *Chairman*"

In February, 1945, the following letter, which was prepared after a conference with the Commissioner of Health of the City of New York Department of Health and officials of the New York State Department of Health, was mailed from the office of the Council Committee on Public Health and Education to the presidents of Kings, Queens, Bronx, New York, and Richmond County Medical Societies:

"Dear Doctor:

"At the Annual Meeting of the House of Delegates of the Medical Society of New York State, held in New York City on May 9, 1944, the Emergency Maternity and Infant Care Program was discussed. The House of Delegates recommended that a system be 'devised for recognition of extra services of the qualified specialist and for compensating him in keeping with the extra services rendered.' This report was adopted. Recently, the Children's Bureau of the U.S. Department of Labor has acceded to this request by allowing a 50 per cent increase in fees for qualified specialists, effective December 15, 1944. A plan of procedure has been devised by the State Health Department, and approved by the Council of the Medical Society of the State of New York at its meeting on November 9, 1944. It is now proposed to institute a similar plan in New York City.

"It therefore becomes necessary to have each of the five county medical societies in New York City assist the New York City Department of Health (the operating agency of the E.M.I.C. program), as follows:

"A joint committee should be set up, composed of qualified representatives in all specialties from the five county medical societies. This committee will have the function of listing the members of their organization who are considered specialists. Such a roster of specialists will be comprised of physicians meeting the following requirements:

"(*a*) Physicians who are diplomates of their respective specialty boards;

"(*b*) Physicians who are not diplomates of a specialty board; these must present evidence that their training and experience meet the requirements of training and experience for admission to the examination of such boards, or that they have had equivalent training and experience in their specialty which, in the opinion of the New York City Commissioner of Health, with the advice of an appropriate advisory committee, is equal to that required for admission to the examinations for board certification.

"(*c*) In the fields of obstetrics and pediatrics only, a physician not falling into group (*a*) or (*b*) may be qualified if he presents credentials satisfactory to the Commissioner of Health, as advised by the Commissioner's present Committees on Obstetrics and Pediatric Consultants composed of qualified obstetricians and pediatricians, respectively, resident in one of the five boroughs of New York City, and approved by their respective county societies.

"This joint committee of the five county medical societies in New York City should be established for this purpose as soon as possible. Physicians should be requested to submit their applications for specialist rating on a form which will be supplied to the county medical societies. The joint committee of the five county medical societies, after review, will forward the application with its recommendations to the New York City Commissioner of Health for final decision.

"The roster of approved specialists will be on record in the New York City Department of Health and the office of the secretary of each county medical society.

"Your cooperation and assistance will be greatly appreciated.

"Sincerely yours,

O. W. H. MITCHELL, M.D., *Chairman*"

In January, 1945, the Director of the E.M.I.C. Bureau, New York State Department of Health, informed the office of the Council Committee on Public Health and Education that a supply of the application forms which are used for the setting-up of a roster of specialists in the E.M.I.C. Program was sent to each of the district health officers and to the secretaries of county medical societies.

There has been splendid cooperation between the official State Agencies and the Medical Society of the State of New York in the working of the E.M.I.C. Program in New York State.

The Subcommittee on Maternal Welfare has the following membership: Charles A. Gordon, M.D., *chairman*, Brooklyn; Edward C. Hughes, M.D., Syracuse; Alexander T. Martin, M.D., New York City; James K. Quigley, M.D., Rochester.

Regional Chairmen in Obstetrics:

1. New York, Richmond, Bronx Counties
   George W. Kosmak, M.D., 23 East 93 Street, New York 28
2. Kings, Queens, Nassau, Suffolk Counties
   Harvey B. Mathews, M.D., 643 St. Marks Avenue, Brooklyn 16
3. Westchester, Rockland, Dutchess, Putnam, Orange Counties
   Julian Hawthorne, M.D., Highland Hall Apartment, 131 Purchase Street, Rye
4. Schenectady, Fulton, Montgomery, Schoharie, Greene, Ulster Counties
   William M. Mallia, M.D., 1364 Union Street, Schenectady 8
5. Albany, Washington, Saratoga, Columbia, Warren, Rensselaer Counties
   Joseph O'C. Kiernan, M.D., 496 Madison Avenue, Albany 3
6. Clinton, Essex, Franklin, St. Lawrence Counties
   Edwin W. Sartwell, M.D., 14 Brinkerhoff Street, Plattsburg
7. Jefferson, Lewis, Herkimer, Hamilton Counties
   Wendell D. George, M.D., 203 Trust Company Building, Watertown
8. Onondaga, Oswego, Oneida, Madison, Cortland, Cayuga Counties
   Edward C. Hughes, M.D., 713 E. Genesee Street, Syracuse 2
9. Broome, Tioga, Chenango, Otsego, Delaware, Sullivan Counties
   Stuart B. Blakely, M.D., 16 Stratford Place, Binghamton

10. Monroe, Orleans, Wayne, Livingston, Ontario, Yates, Seneca Counties
Ward L. Ekas, M.D., 176 S. Goodman Street, Rochester 7
11. Chemung, Schuyler, Steuben, Tompkins, Allegany Counties
[illegible] West Water
12. E[illegible] Cattaraugus, [illegible] West Delavan Avenue, Buffalo 9

Child Welfare.—[illegible]
Child Welfare atte
Council Committee
for the discussion of recent developments of the [illegible]

also were members of the Council Committee on Public Health and Education, officers of the Medical Society of the State of New York, and representatives of the New Y[illegible] and the City of N[illegible]
Members of the [illegible] have also attende[illegible] Committee on Public Health and Education with representatives of the State Education Department to discuss the health teaching program in the high schools. For a report of these activities see the report on "School Health Program."

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Program. Also present at this meeting were members of the Council Committee on Public Health and Education, the Advisory Committee of the Medical Society of the State of New York to the [illegible]

Education of the State Education Department.
The Subcommittee on Child Welfare has the following members: Alexander T. Martin, M.D., *chairman*, New York City; Paul W. Beaven, M.D., *vice-*
New
and

Regional Chairmen in Pediatrics (for regions comprising counties as shown in list of Regional Chairmen in Obstetrics):

1. Harry Bakwin, M.D., 132 E. 71 Street, New York 21
2. Charles A. Weymuller, M.D., 85 Pierrepont Street, Brooklyn 2
3. Reginald A. Higgons, M.D., 264 King Street, Port Chester
4. James J. York, M.D., 930 State Street, Schenectady 7
5. Hugh F. Leahy, M.D., 176 Washington Avenue, Albany 6
6. Sidney Mitchell, M.D., 71 Court Street, Plattsburg
7. Norman L. Hawkins, M.D., Woolworth Building, Watertown
8. Brewster C. Doust, M.D., 713 E. Genesee Street, Syracuse 2
9. Marjorie F. Murray, M.D., Mary Imogene Bassett Hospital, Cooperstown
10. Albert D. Kaiser, M.D., 16 N. Goodman Street, Rochester 7
11. George R. Murphy, M.D., 531 West Water Street, Elmira
12. William J. Orr, M.D., 135 Linwood Avenue, Buffalo 9

PART III

School Health Program

In September, 1942, the Regents passed a regulation requiring the teaching of health in the high schools of the State. In August, 1944, the new *Health Teaching Syllabus for High Schools* was distributed by the State Education Department to the schools. This bulletin was prepared by a State [illegible] n of the [illegible] is a practical aid to administrators and health teachers for immediate use in establishing local health-teaching programs.
To assist in the preparation of this bulletin, the Council of the Medical Society of the State of New [illegible]

[illegible]

"Your Committee notes that one important phase of the School Health Program apparently has not been given the attention it merits either in this or previous reports of this Council Subcommittee.
"We refer to the matter of instruction of health [illegible] available in the normal school in State Teachers Colleges, are not utilized to their full advantage. If we are to have good health instruction in the schools, we must have a sufficient number of well-qualified teachers.
"We *therefore recommend to the Subcommittee* that they place special emphasis on this phase of the subject during the coming year."

This recommendation was adopted by the House of Delegates. On motion duly seconded and carried, this was referred to the Council Committee on Public Health and Education.
On May 23, 1944, in Syracuse, a conference was held to consider the qualifications of teachers [illegible] teachers in this field. It was also stressed at this meeting the need for specific instruction and guidance from the State Education Department to local school authorities on the training, selection, and

assignment of personnel in this teaching program. Also at this meeting it was suggested that the Commissioner of Education might well include such instruction in his letter transmitting the new syllabus to the schools. Present at this meeting were members of the Council Committee on Public Health and Education, the Subcommittee on Child Welfare, the Advisory Committee of the Medical Society of the State of New York to the State Education Department, and representatives from the Division of Health and Physical Education of the State Education Department, the New York State Association of School Physicians, and the New York State Department of Health.

Also on June 22, 1944, another meeting was held in New York City to discuss the health teaching program in the high schools. Present at this meeting were: State Commissioner of Education, President of the Medical Society of the State of New York, members of the Council Committee on Public Health and Education, the chairman of the Subcommittee on Child Welfare, and the director of the Division of Health and Physical Education of the State Education Department.

The following copy of a letter, which was addressed to superintendents and principals of schools from the State Commissioner of Education, was received by the Chairman of the Council Committee on Public Health and Education on June 28, 1945:

"The University of the State of New York
The State Education Department
Office of the President of the University
and Commissioner of Education
Albany

June 26, 1944

"To Superintendents and Principals:

"The new *Health Teaching Syllabus for Junior and Senior High Schools*, prepared under the direction of the Division of Health and Physical Education, will go forward to you soon. It is the aim of the Department to have this syllabus used experimentally in the schools of the State during the coming year. It will be helpful if teachers will record their reactions concerning its practicability and the ways in which it may be improved in its next edition.

"The Department, through its Divisions of Research and Health and Physical Education, will make an intensive study of the use of this syllabus during the coming year in certain schools of different types.

"It is hoped that the State may achieve a health-teaching program that will become fully effective by September, 1945.

"Some schools have already scheduled this course work. Others are now making plans to be carried out during the coming year. It is important that the competent staff be assigned to the teaching and coordination of the health-teaching program. Wherever possible, certified health teachers should be used. If they are not available, teachers with partial preparation will necessarily serve until trained staff can be secured.

"Courses to assist teachers in preparation for high-school health teaching will be offered during the regular summer sessions at several colleges and universities. Intersession courses based on the new syllabus will be offered. This work is for the immediate training of teachers who will be responsible for health teaching in September. Boards of Education may well encourage teachers to take these courses.

"At the beginning of the new school year, the Division of Health and Physical Education will conduct a series of two-day regional institutes throughout the State for the purpose of discussing problems concerned with the local administration of this program. You will receive a schedule of these institutes.

"A form on which you may requisition copies of the syllabus is enclosed.

"Please direct all requests for information and materials to Dr. Hiram A. Jones, Director of the Division of Health and Physical Education.

"Sincerely yours,
GEORGE D. STODDARD"

Copies of the Syllabus were received by the Council Committee on Public Health and Education for distribution to Subcommittee members and officers of the Medical Society of the State of New York.

There has been very satisfactory cooperation between the State Departments of Education and Health, the New York State Association of School Physicians, the Dental Society of the State of New York, and the Medical Society of the State of New York concerning the School Health Program.

On August 21, 1944, the following letter was received by the Chairmen of the Council Committee on Public Health and Education from Dr. Hiram A. Jones, Director of the Division of Health and Physical Education, State Education Department, expressing the appreciation of the Department for the assistance given by the Medical Society of the State of New York in the preparation of the syllabus for health teaching in the high schools:

"The University of the State of New York
The State Education Department
Albany 1

"Division of Health and Physical Education
Hiram A. Jones, Director

August 19, 1944

"O. W. H. Mitchell, M.D., *Chairman*
Council Committee on Public Health and
Education
Medical Society of the State of New York
428 Greenwood Place
Syracuse, New York

"Dear Doctor Mitchell:

"I write to advise that the new *Health Teaching Syllabus* for the Junior and Senior High Schools of the State will be available for distribution next week.

"This syllabus is a product of which everyone should be proud. The State is greatly indebted to you and members of your Committee of the Medical Society of the State of New York for the exceptionally valuable assistance in its preparation. To my knowledge, it represents the finest contribution that has appeared to date in this field. Both from the State and national points of view it is an outstanding piece of work. You will be interested to know that it is being used by the Medical Division of the Selective Service System as the example for the Nation. So, I am grateful for the devoted attention that this work has received from the Medical Society of the State.

"I also want to express the hope that the assistance of your Committee may continue. There are many problems of vital nature on which we need your advice. Immediately I think of the following:

"1. The question of adequate health records that may be uniformly utilized throughout the State and Nation;
"2. The steps that should be taken to insure adequate medical organization and supervision in carrying forward this program throughout the State;
"3. Specific training of school physicians;
"4. Assistance that may be rendered by members of your Committee and representatives of the county medical societies in the conduct of Health Teaching Institutes to present the syllabus materials and help in the local development of this program.

"Any help that you and your Committee can [illegible]

"With all good wishes.

"Sincerely yours,
HIRAM A. JONES"

The Medical Society of the State of New York was represented at a meeting of the Committee appointed by the State Commissioner of Education to study and report on problems of tuberculosis control among school personnel, held in Albany on Tuesday, December 5, 1944. The following issues were considered at this meeting (it should be kept in mind that the Committee is concerned with medical examinations and such related problems only, with regard to tuberculosis control):

1. Should a program for the control of tuberculosis among school personnel be developed?
2. If emphasis were given to such a program, is *additional legislation necessary?*
3. If changes are considered in legislative con- [illegible] should not [illegible] ion of permissive legislation to cover the problem which exists in tenure areas?
5. If [illegible] were mandatory, [illegible] be administered, i.e. [illegible], the State Education Department, or both?
6 [illegible] by [illegible] cat [illegible] should be designated to each?
7. If legislation were obtained should such legislation be a part of the Education Law, the Public Health Law, or both?
8. If the program were undertaken, what action should be recommended with regard to the following:

(*a*) Who would do the examination?
  (1) Private physician
  (2) School physician
  (3) Private physician's examination, findings to be approved by Health Department
  (4) Public-health official
(*b*) Who would pay for the examination?
  (1) School employee
  (2) Governing body of school district
  (3) State Health Department
(*c*) If the [illegible] agenc [illegible]
  (1) [illegible]
  sioner of the State Health Department or such review agency as appointed by him.
  (2) If the appeal were directed toward action taken with regard to the teacher, such an appeal is within the jurisdiction of the Commissioner of the State Education Department.
(*d*) What would or should be done with employees found to have active cases of pulmonary tuberculosis?
  (1) With regard to jobs
    (*a*) A leave of absence for duration of treatment requiring continuous supervision which has been authorized or recommended (by what medical agency)
    (*b*) A leave of absence for six months to two years at the discretion of the appointing officer
    (*c*) In tenure areas or Civil Service what variation of the above would be feasible (Section 575)?
    (*d*) Removed from duty permanently but continued on the payroll at partial or full rate for duration of contract
    (*e*) Discharged
  (2) With regard to economic situation
    (*a*) Income
      Full or partial payment by a school board for a varying length of time or the duration of required treatment [illegible]
      of and in the course of employment)
    (*b*) Hospitalization and treatment
      Paid by patient
      Hospitalization fund
      Paid by State

9. Whether or not the Committee recommends an extension of permissive or mandatory legislation, should an attempt be made to direct attention of all school authorities and school personnel to the scope of the problem?

The Advisory Committee of the Medical Society of the State of New York to the State Education Department has the following membership:

Paul W. Beaven, M.D., vice-chairman, Subcommittee on Child Welfare, 26 South Goodman Street, Rochester
J. G. Fred Hiss, M.D., chairman, Subcommittee on 4-H Clubs and Youth Health Activities, 505 State Tower Building, Syracuse
A. C. Silverman, M.D., member, Subcommittee on Child Welfare, 608 East Genesee Street, Syracuse

Industrial Health.—The Study Committee on Industrial Health has the following membership:

Leon H. Griggs, M.D., *Chairman*, 1804 State Tower Building, Syracuse 2
[illegible]
Syracuse 10
John H. Garlock, M.D., 50 E. 77 Street, New York 21

Stuart A. Good, M.D., Curtiss-Wright Corporation, Buffalo 5
John S. Lawrence, M.D., 260 Crittenden Boulevard, Rochester 7
Nelson W. Strohm, M.D., 289 Linwood Avenue, Buffalo 9

Ex Officio

Edward S. Godfrey, Jr., M.D., Commissioner of Health, State Department of Health, Albany 1
Leonard Greenburg, M.D., Executive Director, Division of Industrial Hygiene, State Department of Labor, 80 Centre Street, New York 13, New York
David J. Kaliski, M.D., Director, Bureau of Workmen's Compensation, Medical Society of the State of New York, 292 Madison Avenue, New York 17, New York.

The Study Committee on Industrial Health held meetings in New York City on July 26 and August 23, 1944, to discuss the educational program to be offered county medical societies for the coming year. Present at these meetings were members of the Study Committee, the Council Committee on Public Health and Education, officers of the Medical Society of the State of New York, the State Commissioner of Health, and the Director of the Division of Industrial Hygiene of the New York State Department of Labor. At the meeting of the Study Committee on August 23, a representative of the Council on Industrial Health of the American Medical Association was also present.

To stimulate interest in industrial health and instruction in county medical societies, the Director of the Division of Industrial Hygiene of the New York State Department of Labor and the Council Committee on Public Health and Education prepared a series of symposia on industrial health. This announcement appears in the 1944–1945 *Course Outline Book*.

Many of the lectures arranged by the Committee on Public Health and Education for county medical societies could be considered a part of the Industrial Health Program, but only one is so designated. See report on "Postgraduate Medical Education."

PART IV

Public Health Activities

4-H Clubs and Youth Health Activities.—Dr. J. G. Fred Hiss, Syracuse, *chairman*, Subcommittee on 4-H Clubs and Youth Health Activities, attended a meeting of the Health Committee of the 4-H Club held in Syracuse on September 26, 1944. The health program of the 4-H Club was discussed. School examinations are accepted in considering the 4-H health program. The general tendency throughout the State is to improve the quality of these examinations. At this meeting the Chairman of the Subcommittee on 4-H Clubs and Youth Health Activities moved that the 4-H Club engage a health specialist or health educator whose chief duty was to instruct club leaders in the importance of the health program so that a larger number of 4-H Club members would engage in this activity. The motion was passed and the request for such a specialist will be made. This should serve a very useful purpose.

Another meeting of the Health Committee of the 4-H Clubs was scheduled for March 14, 1945, when the results of last year's campaign were discussed and analyzed.

The State officials of the 4-H Clubs at Ithaca have sent out weekly letters on health information and programs to the various club leaders. These are very well made up and serve a very useful purpose.

The chairman of the Subcommittee on 4-H Clubs and Youth Health Activities was asked by the Director of Public Health Nursing, Syracuse University College of Medicine, to speak to the nurses taking the public-health course on the health programs of the 4-H Clubs. The nurses are being trained for state and county positions and it is believed that they may be able to use the 4-H Clubs as an outlet for public-health education programs.

Dr. Hiss is also chairman of the Physician's Committee on Personal Health and Safety in connection with the Home and Farm Safety Program of the Division of Public Health Education of the New York State Department of Health. The chairman of the Council Committee on Public Health and Education is also a member of this Committee.

With the approval of the Council, the Council Committee on Public Health and Education has cooperated with the Division of Public Health Education in developing a program on home and farm accident prevention. The Committee has arranged for a series of postgraduate lectures on the medical and surgical care of home and farm accidents. An announcement appears in the 1944–1945 *Course Outline Book*.

Blood and Plasma Exchange Bank.—As a result of the recommendations of the Subcommittee on Blood and Plasma Exchange Bank submitted to the New York State Department of Health in 1944, the New York State Department of Health has prepared a program to provide blood and blood derivatives for use throughout the State. This program was developed with the cooperation of the Medical Society of the State of New York, the State Hospital Association, and the State Association of Public Laboratories. A very extensive survey was made by the State Department of Health. The Department submitted to the Council Committee on Public Health and Education a proposed bill to be submitted to the Legislature of the State of New York. This bill includes the following statements:

> "The Commissioner of Health is hereby authorized to establish, equip, maintain, and conduct a suitable program to collect, process, store, and distribute human blood and the various human-blood derivatives, including special therapeutic and diagnostic serums, which are deemed of value in the treatment of sick and injured persons, and the prevention of certain diseases; to carry out such educational and research activities as he may deem necessary in connection with said program; and to establish necessary rules and regulations to effect the purposes of this act.
>
> "This act shall be effective throughout the State of New York exclusive of New York City.
>
> "The State Commissioner of Health may conduct such program solely as a State activity, or in cooperation with such institutions, hospitals, or municipal corporations as he may select, on such terms as may be agreed upon."

This statement to appear in the proposed bill was approved at the meeting of the Council of the Medical Society of the State of New York on November 9, 1944.

The Subcommittee on Blood and Plasma Exchange Bank has the following membership:

George M. MacKenzie, M.D., *Chairman*, Mary Imogene Bassett Hospital, Cooperstown
Morris Maslon, M.D., 43 Coolidge Avenue, Glens Falls
Lester J. Unger M.D., 135 East 74 Street, New York

Ex Officio

Edward S. Rogers, M.D., State Department of Health, Albany

Cancer.—At a meeting of the Council of the Medical Society of the State of New York on November 9, 1944,

It was moved, seconded, and carried that the President appoint a subcommittee of five members of the Council Committee on Public Health and Education to deal with the subject of cancer and that the American Society for the Control of Cancer be notified of this action.

The President, with the approval of the Council, appointed the following physicians as members of the Subcommittee on Cancer:

Ralph Ten Broeck Todd, M.D., *Chairman*, Tarrytown
James M. Flynn, M.D., 277 Alexander Street, Rochester
Frank E. Adair, M.D., 75 East 71 Street, New York
Victor C. Jacobsen, M.D., 51 First Street, Troy
Clyde L. Randall, M.D., 89 Bryant Street, Buffalo

A meeting of the Subcommittee on Cancer was held in New York City on January 10, 1945. In addition to the members of the Subcommittee there were also present at this meeting officers of the Medical Society of the State of New York, the [illegible] partment of Health.

The Committee will work with the State Department of Health and other agencies to stimulate interest and expand the cancer educational program. During the year arrangements have been made for seventeen lectures on cancer to be given in five counties, including four Regional Teaching Days. Arrangements are now being made for three Regional Teaching Days to be held in various counties in the near future. See report on "Postgraduate Medical Education."

These lectures, presented by the New York State Department of Health and the Medical Society of the State of New York, have been well attended and received.

Dental Health.—The educational program arranged by this Joint Committee appears in the *Course Outline Book*.

The Joint Committee on Dental Health has the following membership:

Medical Society of the State of New York:

O. W. H. Mitchell, M.D., *Chairman*, 428 Greenwood Place, Syracuse 10
Harry Aranow, M.D., 1882 Grand Concourse, Bronx, 57
Carleton E. Wertz, M.D., 91 Parker Avenue, Buffalo 14

Dental Society of the State of New York:

Charles M. McNeely, D.D.S., 1 Nevins Street, Brooklyn 17
Douglas B. Parker, M.D., D.D.S., 121 East 60 Street, New York
Leuman M. Waugh, D.D.S., 931 Fifth Avenue, New York 19

Hard of Hearing and The Deaf.—Through correspondence with every county medical society within the State, the Subcommittee on Hard of Hearing and the Deaf has assisted in organizing, outside of metropolitan New York, thirty-two local committees that have agreed to cooperate in the form [illegible] arranging [illegible] to the [illegible] reported no otologists within their territories, and nineteen failed to respond to any of our appeals.

At the present time there are in New York State ten active "Hearing Clinics." It is expected that within the next year the number will increase to twenty or more.

These Centers are—and will continue to be—established in existing dispensaries where persons normally classified as clinic patients may receive the following free services: (1) complete otologic [illegible] procedures.

The "Hearing Clinics" are not expected to carry out the actual procedures outlined under point (3), *but rather to counsel the patients concerning them.* Personnel especially trained in dealing with acoustically handicapped individuals, the local chapter of the American Society for the Hard of Hearing, classes in the Conservation of Hearing, and the *Schools for the Deaf will be responsible for the educational phases of the work.*

The Subcommittee on Hard of Hearing and the Deaf has the following membership:

C. Stewart Nash, M.D., *Chairman*, 708 Medical Arts Building, Rochester
Ralph Almour, M.D., 71 East 80 Street, New York
John F. Fairbairn, M.D., 925 Delaware Avenue, Buffalo
Edmund Prince Fowler, M.D., 140 East 54 Street, New York
Marvin F. Jones, M.D., 121 East 60 Street, New York

[illegible] nittee [illegible] year. [illegible] War [illegible]

O. W. H. Mitchell, M.D., *Chairman*, 428 Greenwood Place, Syracuse 10
Gustave Au Fricht, M.D., 103 East 86 Street, New York 28
Louis H. Bauer, M.D., 503 Professional Building, Hempstead
L. Whittington Gorham, M.D., Albany Hospital, Albany 1
Leonard Greenburg, M.D., 80 Centre Street, New York 13
Leo Mayer, M.D., 1150 Fifth Avenue, New York 28
James E. Perkins, M.D., State Department of Health, Albany 1
Byron Stookey, M.D., Neurological Institute, New York 32
Frederick S. Wetherell, M.D., 713 East Genesee Street, Syracuse 2

New York State Commission For The Blind.—The following letter was received by the Chairman of the Council Committee on Public Health and Education from a member of the New York State Commission for the Blind and was read at the meeting of the Council on December 14, 1944:

"December 12, 1944

"O. W. H. Mitchell, M.D.
Roosevelt Hotel
New York City

"Dear Doctor Mitchell:

"The New York State Commission for the Blind would like to have the New York State Medical Society cooperate with it in furthering its prevention program. The Commission is anxious to have its approved literature made available to the physicians of our State through your Society. We suggest a plan similar to that used by several of our Midwestern States. The method of approach can be worked out by a small group appointed for that purpose.

"The Commission further asks the New York State Medical Society to indorse its program asking for the mandatory reporting of the blind. This will enable the Commission to fulfill its obligations as defined in Section 3 of Section 84 of the unconsolidated laws establishing the State Commission for the Blind.

"*Section 84* "Register of Blind;" *Sec. 3* "It shall be the duty of this Commission to cause to be maintained a complete register of the blind in New York State, etc."

"This is a brief résumé of our recent talks. If there is any further information desired, please call Miss Grace S. Harper, the Director of the Commission, who is located at 205 E. 42nd Street, telephone Murray Hill 4-5000.

"Very truly yours,
D. F. GILLETTE, M.D."

The Chairman of the Council Committee on Public Health and Education recommended to the Council that the Medical Society of the State of New York cooperate and distribute as a joint activity this literattre. This recommendation was adopted.

Infantile Paralysis Program.—During the year several conferences were held with representatives of the National Foundation for Infantile Paralysis to discuss educational plans, particularly on a regional basis. Some progress has been made but it is likely that much time will be required to satisfactorily develop the program due to the lack of trained personnel because of the war emergency. In cooperation with the New York State Department of Health, a considerable amount of instruction was presented during the time when poliomyelitis was prevalent. For details see report on "Postgraduate Education."

Rheumatic Fever—Rheumatic Heart Disease Program.—During the year special consideration has been given to this program. Lectures were given in various parts of the State. A Regional Teaching Day was held in Syracuse in November, 1944. This meeting was very well attended and favorable comments regarding the speakers were received. The Teaching Day was given as a part of the four-county plan which is being developed in Onondaga, Cayuga, Cortland, and Oswego counties. For details see report on "Postgraduate Medical Education."

The rheumatic fever—rheumatic heart disease program is a cooperative endeavor of the New York State Department of Health and the Medical Society of the State of New York.

PART V

Laboratory Service and Medical Care

The Report of the Reference Committee on Report of Planning Committee for Medical Policies concerning Regional Centers for Diagnostic Aid which was accepted by the House of Delegates at its meeting in May, 1944 reads as follows:

"The Committee has made a very comprehensive study of the necessity of the location and the supervision of the centers in rural areas. They believe they can be created and operated in carefully selected areas with no damage to a free and unfettered practice of medicine. Since no specific recommendations are made at this time, we will not go into the details of their report. They do, however, recommend that a special committee or subcommittee be appointed by the President to make a survey of New York State to determine the need for such a program and the areas to be cared for. The suggested methods of operations are, of course, tentative, and if the survey indicates the desirability of establishing such diagnostic centers, then the details of management would have to be worked out carefully. Your Reference Committee recommends the appointment of such a committee by the President."

By action of the Council at the meeting held on November 9, 1944, this was referred to the Committee on Public Health and Education and the President authorized to appoint a Subcommittee to study the need for Diagnostic Centers in New York State.

The Subcommittee on Laboratory Service and Medical Care has the following membership:

F. Leslie Sullivan, M.D., *Chairman*, Scotia
First District—Westchester and Putnam Counties
Andrew A. Eggston, M.D., New York
Orange and Rockland Counties
Stephen R. Monteith, M.D., Nyack
Dutchess County
Scott Lord Smith, M.D., Poughkeepsie
Third District—Albany, Columbia, Greene, Rensselaer, Schoharie, Sullivan, Ulster Counties
Kenneth F. Bott, M.D., Greenville
Fourth District—Clinton, Essex, Franklin, Fulton, Hamilton, Montgomery, St. Lawrence, Saratoga, Schenectady, Warren, Washington Counties
Dan Mellen, M.D., Rome
Fifth District—Herkimer, Jefferson, Lewis, Madison, Oneida, Onondaga, Oswego Counties
George A. Marsden, M.D., Oswego
Sixth District—Broome, Chemung, Chenango, Cortland, Delaware, Otsego, Schuyler, Tioga, Tompkins Counties
Ivan N. Peterson, M.D., Owego
Seventh District—Cayuga, Livingston, Monroe, Ontario, Seneca, Steuben, Wayne, Yates Counties
Walter S. Thomas, M.D., Rochester
Eighth District—Allegany, Cattaraugus, Chautauqua, Erie, Genesee, Niagara, Orleans, Wyoming Counties
Peter J. Di Natale, M.D., Batavia

These physicians are now engaged in making surveys [illegible] of their [illegible]

1. M[illegible] lines, giving the nearest exact figure of population in towns, in villages of 3,000 or over, and in cities and counties.

2. Location of the effective and ineffective physicians and the relative ratio of specialists to general practitioners.

3. Location of all legally incorporated hospitals with specification as to the types of hospitals, number of beds, and remarks as to types of service and whether there is sufficient service capacity for the community served; notation of x-ray and metabolic laboratory services, approximate percentage of acute service.

4. The location of all laboratories assisting in diagnosis of any type; specification as to type, approved or unapproved; whether they are associated with or are independent of a hospital; and the variety

tories, Procurement and Assignment Service, the Health Preparedness Commission, the Planning Committee, and the Committee on Public Health and Education of the Medical Society of the State of New York. Further meetings with other committees and commissions making similar studies under governmental direction are anticipated as the work progresses.

PART VI

Rehabilitation

Under date of January 2, 1945, Dr. Edward S. [illegible] Public Health and Education the following letter:

"State of New York
Department of Health
Office of Medical Administration
Albany 7

Bond Street
76 State Street

"Edward S. Godfrey, Jr., M.D.
Commissioner
"Dr. O. W. H. Mitchell, *Chairman*
[illegible]
York

Syracuse 10, New York
"Dear Doctor Mitchell:
"[illegible]
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1929, is not adequate at the present time, as it includes certain surgical procedures which no longer are being performed, excludes some procedures which are being used, and, finally, is out of date as far as the actual fees for the various procedures are concerned.

"Some time ago an inquiry was sent to the Regional Consultant Orthopedic Surgeons eliciting their opinions as to what changes should be made in the fee schedule and in accordance with their opinions, Dr. O'Donnell, associate physician (orthopedics), Bureau of Medical Rehabilitation, prepared a tentative fee schedule. This tentative schedule was submitted for revisions and recommendations to the Department's Orthopedic Advisory Committee, consisting of Dr. Alan DeForest Smith, Dr. Philip Wilson, and Dr. R. Plato Schwartz.

"Attached is a copy of the final fee schedule which is to be submitted to the Commissioner for his approval. Thus, this fee schedule represents the opinions of a majority of the practicing orthopedic surgeons throughout the State.

"We would be pleased to receive your advice or comments before sending it to the Commissioner for final approval.

"Sincerely yours,

EDWARD S. ROGERS, M.D
Assistant Commissioner for Medical Administration"

Dr. Rogers was advised by the chairman of the Council Committee on Public Health and Education that it wasn't a matter for the Committee to decide but was something which should be brought before the Council of the Medical Society of the State of New York.

[illegible] di[illegible] Y[illegible] S[illegible] ministration of the New York State Department of Health, conferred with the chairman of the Council Committee on Public Health and Education to discuss the proposed fee schedules covering an almost identical [illegible] cluded in the Y[illegible] During this conf[illegible] Committee on Public Health and Education informed Dr. Rogers and Mr. Bohlin that he would request the Council of the Medical Society of the State of New York to designate a Committee of four or five physicians who work in this field to decide whether the fee schedules were in keeping with reasonable [illegible]

[illegible] approved. The President appointed the following physicians as members of the Subcommittee:

O. W. H [illegible]
Charles [illegible]
Conrad
Edward R. Cunniff, M.D., New York
Ralph T. Todd, M.D., Tarrytown

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Workmen's Compensation Bureau, and representatives from the New York State Department of Health and the Division of Vocational Rehabilitation of the New York State Education Department.

All of the surgical procedures in the list submitted for the Handicapped Children's Program of the New York State Department of Health and the Vocational Rehabilitation Program of the New York State Education Department were compared with the fee schedules of Workmen's Compensation. After thorough discussion, there was agreement on the fees to be submitted by the State Department of Health for the Handicapped Children's Program and the State Department of Education for the Vocational Rehabilitation Program. They are uniform for identical procedures in the three fee schedules. The Subcommittee realizes that only a beginning has been made. It is likely that in the near future these fields of activities will be broadened and that other government agencies will request conferences.

PART VIII

Medical Service and Public Relations

The Committee on Medical Service and Public Relations respectfully submits the following report.

There was a Regional Conference of the Council on Medical Service and Public Relations of the A.M.A., held at the Mayflower Hotel, Washington, D. C., on December 6, 1944. Our President, Dr. Herbert H. Bauckus, in accordance with the authorization of the Council of the State Medical Society, appointed a committee of five to attend: Dr. Edward R. Cunniffe, President-Elect, Dr. O. W. H. Mitchell, chairman of Public Health and Education, Dr. J. Stanley Kenney, chairman of Policy Planning, Dr. Carlton E. Wertz, chairman of Public Relations and Economics, and Dr. John L. Bauer, chairman of Medical Service and Public Relations. Dr. Walter P. Anderton, Secretary of the State Society; Dr. Herbert H. Bauckus, and Mr. Dwight Anderson, of the Public Relations Bureau, were also present.

Presidents, secretaries, and other representatives from other states of the Eastern region with the members of the Council of the A.M.A., including Dr. Louis H. Bauer, trustee, were included.

Dr. John H. Fitzgibbon, of Oregon, presided. He outlined the purpose of the Conference, reviewed the work that had been accomplished, and announced certain decisions of the last House of Delegates of the A.M.A.

Mr. J. W. Holloway, Jr., gave a description of the creation and program of the Council, followed by free discussion.

Dr. Joseph S. Lawrence initiated us into the problems of the Washington office, and outlined a program for the coming year. He said that he would keep us informed of the bills introduced, and he asked that we would see to it that the Congressmen and Senators from our districts were acquainted with our wishes in regard to these bills. This plan follows the same procedure which Dr. Lawrence has pursued during his many years as Executive Officer, in relation to legislation of the State of New York.

Lt. Col. Harold C. Leuth spoke on the topic of "Assisting Returning Physicians in Securing Locations." Dr. F. H. Arestad talked on "Postgraduate Refresher Courses." Dr. Carl Peterson's subject was "Rehabilitation."

Voluntary health-insurance plans that have developed were freely discussed. The representatives from the State Medical Society found themselves rather well informed on these plans, possibly owing to the extensive education they have been receiving from the President, Dr. Herbert H. Bauckus.

It was emphasized that there was a great need of bringing to the attention of Congressmen the attitude of Medicine and that our program should be constructive and aggressive—not defensive.

We have just received from Dr. Lawrence Bulletin No. 8, which requires the attention of the Medical Service and Public Relations Committee. This committee, as set up by the Medical Society of the State of New York, consists of Dr. Edward R. Cunniffe, Dr. Walter P. Anderton, Dr. Robert R. Hannon, Dr. Walter W. Mott, Dr. Leo F. Simpson, and Dr. John L. Bauer.

A meeting was scheduled for Friday, February 16, in Albany, on the same day that the Conference of the County Society Legislative Chairmen would meet.

PART X

Workmen's Compensation

The Council Committee on Workmen's Compensation—Dr. Harry Aranow, *Chairman*, New York; Dr. Joseph P. Henry, Rochester; Dr. Dan Mellen, Rome—has submitted the following report.

REPORT

The annual report of the Council Committee on Workmen's Compensation to the House of Delegates for the year 1944 was a complete survey of the medical aspects of the Workmen's Compensation Law from the year 1935 to 1944 and took stock of the situation existing last year.

The law was amended in 1935 to provide more adequate medical care for injured workmen and to eliminate abuses and evils which existed. The Workmen's Compensation Law was enacted in 1913 to provide prompt medical care for injuries arising out of and in the course of employment and to compensate for disabilities.

The cost of medical care in compensation is borne directly by the employers of the State and indirectly by the public. Inferior medical care is expensive in that it prolongs disability and may result in greater functional loss, thereby increasing compensation. Frequently it results in disability impairing industrial skill and reduces the earning capacity of the worker. The purpose of the amendments to the law in 1935, vouchsafing free choice of physician to the worker, was to enable him to obtain treatment at the hands of a physician or specialist of his own choice and to select from the most competent and highly skilled practitioners in this State. To date more than twenty thousand physicians have been authorized to treat workmen's compensation patients.

The free-choice principle has gone a long way to eliminate the so-called compensation medical clinics, many of which were owned or controlled by lay persons and operated for profit without due regard to the welfare of the worker. The free-choice principle required the adoption of certain regulatory controls of medical practice. These were effected through the intervention of the sixty-one county medical societies of this State which, under the statute, were given certain disciplinary and regulatory powers. For the first time physicians were required to limit their medical practice to what they were actually qualified to do, thereby safeguarding

the patients. General practitioners and specialists were rated by the county medical societies' compensation boards in accordance with high standards which were set up and followed, to the end that physicians designated as specialists could be safely trusted to render a high quality of medical care. Only licensed and authorized physicians were permitted to make x-ray examinations and to use x-rays for treatment. Thus to all intents and purposes, the specialty of x-ray under the Workmen's Compensation Law actually was regarded as the practice of medicine.

Although we originally recommended that lay-owned and commercial x-ray laboratories should not be permitted to operate, the wording of the statute enacted into law in 1935 permitted the operation of such laboratories provided they were supervised by qualified physicians. We feel that this has permitted the intrusion of [illegible] sation practice, an evil [illegible]

The report gave in [illegible] sponsibilities of the medical societies and indicated with what degree of competency these functions were carried out throughout the State. It might be stressed here that the amendment to Section 13 of the Workmen's Compensation Law was passed in the late Spring of 1935. The amendments affecting the Medical Societies went into effect on July 1, [illegible]

achieved with singular efficiency and success and without any cost to the State. The amendments of last year (1944) took away from the county societies in New York, Kings, Queens, and Bronx direct responsibility for carrying out these functions. More than ten months have elapsed since these amendments went into effect and yet the new body of the Labor Department upon whom these responsibilities were placed has failed to function in a satisfactory manner. Many physicians have been held up for more than six months in their efforts to practice [illegible] others waited [illegible] at the [illegible] he four [illegible] to assist [illegible] or origi- [illegible] menda- [illegible] inctions could be carried out at all. In effect, the four Greater New York county medical societies are again performing certain functions which legally devolve upon the Medical Practice Committee.

As a result of the recent Moreland Act Investigation, a large number of physicians were charged by the Industrial Commissioner with accepting rebates from roentgenologists, x-ray laboratories, and dealers in surgical supplies. The four county medical societies in Greater New York were efficient enough to hold trials or hearings of a majority of those physicians charged with derelictions. On the other hand, hundreds of physicians whom the medical societies were unable to hear or try for many reasons not within their control and who were referred to the Medical Practice Committee for trial have not as yet been brought to justice. We know of no instance where even the most flagrant offenders have been called upon to stand trial as required by law. Furthermore, in no instance has the Industrial Commissioner exercised his rights, in spite of all the clamor made by the Moreland Commissioners, even to temporarily suspend one of these physicians, pending trial. It might be pointed out here that the medical societies fulfilled their obligations to the State at great cost to themselves and the State was saved the expense of carrying out these functions. Compare this with the cost to the State of trying to "administer" the law under present auspices.

In the report of the Pool Committee on Workmen's Compensation appointed by Governor Lehman in 1933, it was recommended that the county medical societies assume the responsibilities of investigating charges filed against physicians for improper medical practice and violations of certain ethical principles which were incorporated in the Workmen's Compensation Law. It was not intended that the medical societies should alone seek out the offenders, make charges, and then act as trial bodies, thus assuming police powers over violators of the Law. While it is urged that the power of the medical societies to recommend discipline of their own members and those whom they have qualified be restored to the local county medical societies in New York, it is felt that the proper functioning of the Workmen's Compensation Law re- [illegible]

tion have the independent power to file charges against any physician violating the law and after a hearing to suspend or revoke his license.

It is clear that the interest of the State from the [illegible] par with the other fifty-seven counties of the State.

The following resolution was passed by the House of Delegates in May, 1944:

"WHEREAS, at the recent session of the Legislature of this State, the Workmen's Compensation Act was amended in such a manner as to divide the State of New York in this matter into two distinct portions, (1) the counties of New York, Kings, Queens, and Bronx, and (2) the remainder [illegible] [illegible] ians for certain [illegible] be it therefore [illegible] *ety of the State* [illegible] *lature and have legislation introduced to return to the four county medical societies those powers that were abrogated by the recent change in the compensation law.*"

We have repeatedly stated in our reports that the proper functioning of the Workmen's Compensation Law is largely dependent upon the efficiency of the Department of Labor. It is high time that the administrative procedures of the Department be so [illegible]

and promptly compensated for lost time and disability.

We believe it is not too much to assert that no other interested parties to the Workmen's Compensation Law, not even the Labor Department, has made a greater contribution to the public welfare than the medical profession through its agencies. Progress in workmen's compensation administration is evolutionary rather than revolutionary. Once laws are enacted, even if widely drawn, they must be properly administered by the agency of government responsible for their enforcement. Unless the statutes are drawn carefully and after due thought, they may defeat the purpose for which they are intended. No little confusion has been created and maladministration fostered by ambiguities and redundancies in the original amendments enacted in 1935. The medical societies were not unaware of this confusion and frequently sought by all means to obtain amendments to the Law to clarify and simplify the statutes so that they could be more effectively administered and so that the medical societies and medical profession could more effectively carry out their responsibilities. Unfortunately, despite the recommendations of the medical societies, few, if any, amendments of the law to improve its administration have been enacted since 1935.

Nothing that has transpired in the Labor Department during the past year indicates much improvement along these lines. A reorganization of the Department is urgently needed. Clamor and furor of the Moreland Act investigation resulted in many amendments to the Workmen's Compensation Law last year. A number of these were hastily drawn and, though well intentioned, failed to achieve the purposes for which they were enacted. This is just another example of trying to improve things by "passing a law" without giving due consideration to the means of achieving the end. It is necessary now to recommend further amendments to clarify and simplify the administration of the Workmen's Compensation Law, particularly as it affects Section 13. In this your Committee has, to the best of its ability, cooperated with the Industrial Commissioner and it is hoped that the present session of the Legislature will give consideration to amendments designed to clear up the situation with respect to many parts of Section 13.

Our Workmen's Compensation Bureau has repeatedly recommended the separation of the claims and medical departments of insurance carriers. This same recommendation has been made by other investigating bodies but has not, up to the present time, been adopted by the insurance carriers. This is in the interest of the injured worker and would achieve a more harmonious relationship between the medical profession and the carriers and employers. The petty irritations which result from contact between the law personnel of insurance carriers and practicing physicians do not make for proper and harmonious relationships, and occasionally redound to the disadvantage of the injured workers. Furthermore, the insurance carriers, self-insurers, and other employers should employ properly qualified physicians and consultants to check up on patients under treatment rather than commit this important function to physicians occasionally not qualified for the important function they serve. It would seem, from the standpoint of self-interest, that the insurance carriers would realize that the highest quality of medical personnel would, in the long run, serve their interests better than the employment of less fully qualified examiners.

The Committee protested a decision of the Industrial Board upheld by the Attorney General in 1936 to the effect that unauthorized physicians under the Workmen's Compensation Law would be permitted to participate in examinations before the Department of Labor or to render testimony. The original opinion held that only physicians who *treated* patients might be authorized by the Industrial Commissioner. The brief submitted was based on the definition of the practice of medicine as contained in Section 1250 of the Education Law (which indicates that all physicians examining or treating patients are engaging in the practice of medicine) and, therefore, should also be authorized and qualified by the Industrial Commissioner, if they are to be permitted not only to treat patients but to examine compensation claimants and to give testimony. Our protest was necessitated by the fact that a certain physician whose license to practice under the Workmen's Compensation Law had been suspended was acting as an examiner of patients at the Department of Labor. No opinion from the Attorney General on this question has been received.

At the last meeting of the House of Delegates held in May, 1944, the following resolutions were passed:

> *"Resolved*, That the Medical Society of the State of New York take such appropriate action as is necessary with the Industrial Commissioner of the State of New York and the representatives of the Compensation Insurance Carriers that an increase be granted to the medical profession for fees in the present Medical Fee Schedule."
>
> *"Resolved*, that the Medical Society of the State of New York be requested to arrange with the Industrial Commissioner of the State of New York that no deduction be made in the payment of bills for Workmen's Compensation cases (5 per cent discount)."

At the June, 1944, meeting of the Council of the State Society, all amendments to Section 13 and 10-a of the Workmen's Compensation Law and Labor Law which were enacted at the 1944 session of the Legislature and signed by the Governor were presented.

Up to that time, the Industrial Commissioner had not announced the names of the Medical Practice Committee to function in the four New York counties. Neither had the Governor announced the names of the three medical members of the Industrial Council who were to constitute the Medical Appeals Unit of such Council.

A request had already been received, however, from Commissioner Edward Corsi by each of the four county medical societies to cooperate with the proposed Medical Practice Committee yet to be appointed, in carrying out the qualifications of physicians in the four counties, although at that time he had not made a formal request in writing as the societies had requested. A question was also raised as to the power of the Commissioner under the law to delegate to the County Medical Societies these functions in the four counties.

Arbitrations.—Under the new law all arbitrations outside of the four New York county societies are carried on as before, with the exception that a fifth arbitrator (physician) in each instance was to be appointed by the Industrial Commissioner. The settlement of disputed bills in the four county medical societies was to be done by the new Medical Practice Committee, but the law does not provide for regular arbitration proceeding. The decision

of the three members of the Medical Practice Committee is final and binding on the parties and there is no provision for an appeal from their decision. These functions in the past were, we are certain, satisfactorily carried out by the county societies and insurance carriers' organization without any cost to the State. No need for a change was demonstrated and these functions, too, should be restored in the four counties.

During the year 1944 (up to June 1) there were twenty-nine arbitration sessions held. This includes the metropolitan area and the upstate area; 212 cases were arbitrated in the metropolitan, and 48 in the upstate area. In a total amount of 260 cases arbitrated, awards were given in all but 15. The amount of money in dispute in the metropolitan area was $20,468.17, and the awards totaled $11,263.92. This included the cases in which no awards were made. The amount in dispute in the upstate area was $4,358.40 and the awards totaled $2,467.20. In 143 cases, bills scheduled for arbitration were settled at the time of arbitration without the necessity of a hearing. Arbitrations will be continued under the joint auspices of the county medical society and the Compensation Insurance Rating Board in fifty-seven counties outside New York City, as heretofore

Examination Facilities.—The Workmen's Compensation Committees of the county medical societies continued studies made at the request of the Industrial Commissioner on the facilities available in various parts of the State for the examination of claimants by physicians of the Department of Labor at the time of hearings before referees. (Communication No. 56 attached.)

On June [illegible] I. [illegible] vited your [illegible] pate in a co[illegible] ried hospital roentgenologists under the provisions of the Workmen's Compensation Law (Section 13-d). Oral arguments were presented and a written brief submitted indicating the stand of the Medical Society in regard to roentgenology as the practice of medicine and the right of the hospital to charge for

[illegible]

Roentgenologists, Pathologists, Anesthesiologists, and Physical Therapy Physicians, was published in the STATE JOURNAL OF MEDICINE, September 1 and 15, 1944. It was urged that the Council of the Medical Society of the State of New York take a strong stand on the right of the hospitals to practice medicine, and it was further urged that steps be taken to have the specialty of roentgenology designated in the Statute as a branch of the practice of medicine.

At this June meeting reports were made by the Director on the trials and hearings held of physicians charged with violations of the Workmen's Compensation Law as a result of the Moreland investigation. This included a report from Westchester County.

The Director was requested by the Council to "hold preliminary conferences with the representatives of insurance carriers (Compensation Insurance Rating Board), self-insurers, and representatives of [illegible] conditions." This has been done and we sincerely hope such an agreement will shortly be reached, preliminary to hearings by the Industrial Commissioner on the fee schedule.

Your Director was authorized to cooperate with [illegible] ture in 1945.

Your Director was requested to sit with the Committee on Industrial Health, of which Dr. Oliver W. H. Mitchell is chairman, and has attended a number of meetings of this committee.

The Bureau undertook a study of compensation fees throughout the United States and addressed a communication to all state medical societies as well as to the Commissioner of Labor or similar officer in every state of the Union to obtain the necessary information. This information is now being tabulated.

Many conferences were held with the Industrial Commissioner and his deputies in regard to the functions of the compensation committees of the four county medical societies in qualifying physicians in the course of the year. On November 29, 1944, the Industrial Commissioner, the Hon. Edward Corsi, after a number of conferences, finally announced the support of the four counties in New York in the qualifying of physicians by writing a letter satisfactory to the Society which in part read:

> "In the interest of attaining proper and harmonious administration of the amendments to Section 13 of the Workmen's Compensation Law, I am requesting, and shall appreciate your kind cooperation and advice in the same friendly spirit as you have so generously given in the past."

The Industrial Commissioner enlisted the support of the Society in obtaining from physicians *throughout the State prompt* reporting of compensation cases, especially the notarization of the C-4 reports. We strongly urge that physicians treating or examining compensation patients send in all necessary reports promptly to facilitate the prompt adjudication of claims, thereby hastening the payment of compensation to the injured worker and prompt consideration of bills for medical care.

Under date of December 21, 1944, we issued a bulletin to all c[illegible] St[illegible] excerpts from [illegible] November 9, [illegible] to standards of qualifying physicians available to all counties in the State and to information necessary for the compiling of information concerning increase in fees warranted under present conditions. It urged all physicians to read the provisions of Section 13 of the Workmen's Compensation Law, which we published in the December 15, 1944, issue of the NEW YORK STATE JOURNAL OF MEDICINE. It also requested each county medical society to make a report to the Bureau of any complaints of alleged violations of the free-choice principle of the Workmen's Compensation Law (Section 13-a 6). It [illegible] medical societies [illegible] Compensation

Bureau For Bill Collection And Adjustment Of Disputes Between Physicians And Employers and Insurance Carriers.—It is proposed that the Bureau serve as a clearing house for the fifty-seven county medical s[illegible] of the n[illegible] physician[illegible] Many of [illegible] ties for protecting the interests of physicians in

workmen's compensation matters and it is proposed that the facilities of this Bureau be made available to all such counties as desire it.

The Bureau will continue to receive all objection forms to doctors' bills and at periodic intervals will send these forms to the chairman of the workmen's compensation committee of the county medical society and to the secretary of same and request the workmen's compensation committee either to take direct action in an attempt to straighten out disputes, or if the facilities for such adjustment are not available in the county, to refer the matter to this Bureau for action. This service has been carried out to a limited extent throughout the State and has been greatly appreciated by many county medical societies and a large number of physicians. If this procedure is approved the Bureau will circularize the entire state to the end that physicians' bills will, in the future, be more promptly paid or, if settlement is impossible, will be promptly arbitrated.

The assistance of the Bureau was enlisted by the Vice-Chairman of the Industrial Board, Miss Mary Donlon, in the discussion of an amendment to Section 15, 8-a of the Workmen's Compensation Law which was enacted in May of 1944. This law was devised to enable injured war veterans to obtain employment and to apportion the degree of disability resulting from a possible second injury between the then insurance carrier and a Special Fund created especially to bear the cost of disability resulting from the first injury or illness. In other words, the insurance carrier or employer would be responsible only for such portion of the disability and medical care as could properly be ascribed to the second injury alone, based upon medical testimony. This law, as enacted, is redundant and ambiguous and covers not only veterans but all employed persons who had sustained injuries or had suffered a disease which was aggravated by a second injury or recurrence of an industrial disease. One hearing was held at our office and another at the office of the Industrial Board, at which time your Director represented the Society. It is hoped that as a result of these meetings a sufficient expression of medical opinion was obtained to enable the Department to write an amendment to the law so as to make this section workable.

Expert Consultants.—The amended law of 1944 provided for the setting up of panels of medical experts in various specialties to assist in the adjudication of claims, and to resolve disputes concerning medical care. Up to the present time nothing has been done to set up these panels.

In January, 1945, the Industrial Commissioner, the Hon. Edward Corsi, requested the cooperation of your Committee in the selection of physicians to serve on panels of specialists to assist the referees and Industrial Board in the determination of questions of causal relationship, degree of disability, and medical questions concerning treatment of claimants under the Workmen's Compensation Law. These panels of specialists were authorized in the Spring of 1944. The Industrial Commissioner was of the belief that, from investigations he had made, a salary of $7,500 per year for part time was not adequate to secure the services of properly qualified specialists. If this were the case, it would be necessary to obtain an amendment to the law to permit the payment of larger fees. A preliminary examination indicated that it would be possible in many parts of the State to secure many thoroughly qualified specialists for the sum of $7,500. A certain number would be available in New York City. A bulletin has been issued to the county societies of the State requesting them to explore this situation and advise this Bureau of the names of properly qualified physicians who would be willing to accept appointments.

Ives Legislative Committee.—The Joint Legislative Committee on Industrial and Labor Conditions, which was headed by the Hon. Irving M. Ives, held a public hearing at the Hotel Roosevelt on December 18, 1944. Through an inadvertence an invitation which had been sent to Dr. Joseph Lawrence, advising the State Society of the meeting, had not been received because Dr. Lawrence had left the employ of the State Society before this date. We were not aware of the Legislative Committee meeting until the morning of the Council meeting held the same day. Nobody represented the State Society at the hearing, although matters of great importance to the medical profession involving Workmen's Compensation and other matters were brought up. A letter was addressed to Mr. Ives shortly thereafter requesting that the State Society be given an opportunity to be heard by his committee in advance of any report to the Legislature for changes in the law. Unfortunately, no reply has ever been received to this letter. On February 8 another letter was addressed to Mr. Ives by Dr. Herbert H. Bauckus, President of the Medical Society of the State of New York, indicating the interest of the medical profession in the work of the Ives Committee and requesting an opportunity to discuss the forthcoming report of the Committee. The Ives Committee has not yet replied and we have not, up to the present time, had an opportunity to discuss matters with Mr. Ives, the chairman of the Committee, or with any other members of the Committee.

Fee For Testimony Of Physicians.—An important question involving the payment of physicians for testimony before the Department of Labor has again arisen. The law provides in Section 13-f (2) that a physician whose presence is required at a hearing before the Department of Labor is entitled to receive a fee from the employer or carrier, the amount of which is to be fixed by the Industrial Commissioner. Usually general practitioners are paid a fee of $10 and specialists $25 for their testimony. In rural areas the physician often has to travel a long distance and spend part of the day, or the whole day, in testifying. The Industrial Board holds that under the law it may not pay more than four and a half cents a mile for travel to the place of the hearing. Recently a physician spent a half day and traveled fifty-six miles. He was reimbursed by a fee of $10 for testimony, and $2.50 for mileage based on four and a half cents per mile. In this particular instance there was no other means of transportation available than the physician's car. In a previous discussion of this matter with the Chairman of the Industrial Board, it was held that in instances such as the above, the referee, while not able to make a larger allowance for mileage, could increase the fee of the physician for testimony to adequately compensate him for the time spent. We have again addressed a communication to the Industrial Board calling these facts to their attention and requesting a ruling by the Board so that physicians may be adequately compensated for the time spent and expense incurred in complying with subpoenas of the Department of Labor requiring their presence at hearings. Referees should be instructed to ad-

just the fee in such a way as to adequately compen-

other government agencies.

Qualifying Standards.—We have now completed a new set of standards to guide the county medical societies in the qualification of physicians. These have been sent to each county society in the state for their guidance. Questions frequently arise concerning the method of qualifying a particular physician and may be referred to this office for opinion.

Medical Care, Treatment, Practice Of Medicine. —Under date of August 18, 1936, the Attorney General ruled that the Industrial Board was correct in the ruling which it made that physicians who *examined* or *participated* in *examinations* or who *testified* at hearings and *did not* treat claimants are not required to be authorized by the Industrial Commissioner, and may accept fees from claimants. A specific difference was made between physicians who treat claimants and those who examine claimants. To this opinion we take objection, as "examination" is obviously a part of the practice of medicine. The Workmen's Compensation Law uses the term "treatment" throughout. In our opinion it is inclusive of "examination" or "diagnosis." A person who examines should be authorized to do so as is any other physician under the Workmen's Compensation Law.

Soon after the Moreland investigation was begun, certain physicians were suspended from the list of physicians authorized to render medical care to injured workmen by the Industrial Commissioner. These physicians promptly appeared in the Department of Labor and acted as medical examiners and gave testimony before the Commissioner. This was a flouting of the law that was encouraged by

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1936. We be-
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and spirit of the Workmen's Compensation Law, and
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this day we have not received a reply, nor has the present Deputy Commissioner Goodman rendered an opinion in the matter.

On December 12, 1944, your Director again submitted this question to the Deputy Industrial Commissioner for his attention. It is a matter of the utmost importance which involves the question of what constitutes the practice of medicine. It may require an amendment to the Workmen's Compensation Law.

Prompt Notification Of Intention To Controvert A Claim.—The importance of notifying physicians as promptly as possible of the intention of controverting a case under medical care so as to protect the physician's rights and assure the claimant proper and continued medical care need not be stressed. We believe that the Department of Labor should
- compensation
xperience indicates that physicians are encouraged by insurance carriers to treat claimants when the carrier was possessed of information indicating that the claim would probably be disallowed.

The need for prompt notification of the physician that a claim is to be controverted is absolutely essential to the interest of the doctor and in the long run to the interest of the injured workman. Many physicians are reluctant to participate in the treatment of workmen's compensation cases after a few unpleasant experiences when they attempt to collect bills after weeks or months of treatment, only to be informed that the case was being controverted and subsequently disallowed by the Department. Certain insurance carriers offend more frequently than others in this respect.

Physicians should not be conditioned by bad experiences with carriers to neglect the interest of the claimant by refusing to give necessary treatment promptly or to postpone necessary treatment because of the lack of prompt cooperation on the part of insurance carriers. Most physicians are more than willing to meet the carriers halfway in the interest of providing prompt and efficient medical care to injured workers.

Furthermore, insurance carriers should not permit a situation to arise in which outstanding physicians feel that they are being imposed upon by insurance carriers because of their failure to act promptly when a req
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way to correct the situation is to so improve the administrative practices of the insurance carriers as to avoid even the suspicion on the part of the physician that he is being imposed upon because of a technicality in the law.

Objection To Physicians' Bills.—An insurance carrier objected to a bill of a physician who treated a patient for syphilis in connection with a compensation injury because said physician was a general practitioner with a rating to treat industrial injuries and diseases. This raised a fundamental question concerning the scope of the general practitioner
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specialist and denying the right of a general practitioner to treat him. General practitioners are recog-
of syphilis.

There has been a tendency of late for certain insurance carriers to deny payment of a physician's bill on the ground that the physician was not "qualified" under the Workmen's Compensation Law to treat a particular condition or disease. The Workmen's Compensation Law *does* require a physician to limit his practice to what he is qualified by
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explain as to definitely determine or delineate the exact qualifications of a given practitioner. The practitioner, himself, must to a large extent limit his own work in accordance with his training, experience, and conscience. Certain broad general principles have been laid down by the medical societies through this bureau from time to time which have

worked out very well from a practical standpoint and the welfare of patients has been safeguarded by the care with which physicians have been granted authorization to treat compensation claimants, but in the long run much depends upon the physician himself in determining the type of patient he will accept or reject and, in the latter event, refer to another practitioner or specialist. A tendency to limit more and more the field of the general practitioner is not consistent with the welfare of the public and with good medical practice throughout the State. The medical societies, through their compensation committees, should encourage high quality medical care and should, of course, be vigilant in investigating instances of improper medical practice or complaints of the assumption on the part of a physician of responsibility beyond his training and competence. The State Medical Society has provided many opportunities for the general practitioner to familiarize himself with the latest advances in medicine and opportunities for postgraduate work are afforded throughout the State. As a result the level of professional competence is high throughout the State among general practitioners.

New York State Federation of Labor.—A conference was held recently with the President and representatives of the New York State Federation of Labor, with a view of bringing about a closer relationship and mutual understanding between the Society and this group in all matters affecting medical care and especially treatment of injured workers under the Workmen's Compensation Law. It is hoped that it will be possible soon to bring about this relationship.

Radiology.—During the year 1944 there were four radiology examinations held at the New York Academy of Medicine building for the Metropolitan area. Sixteen applicants were examined (Kings 2, Westchester 4, New York 9, and Nassau 1).

It is recommended that all applicants for either XD or SD rating be referred to the advisory State Radiology Committee for examination, unless the applicant can fully meet the standards for x-ray qualification (*q. v.*).

Condon Bill.—As this report is being written, the Legislature has passed a bill to amend the Labor Law and the Workmen's Compensation Law to create in the Department of Labor a new Workmen's Compensation Board. This bill abolishes the old industrial board and transfers its functions, powers, and duties to the new workmen's compensation board.

The new workmen's compensation board will consist of ten members, at least three of whom shall be attorneys and counsellors-at-law duly admitted to practice in this state.

The members of the board shall be appointed by the Governor, by and with the advice and consent of the Senate.

The present appointees of the industrial board constituted the first members of the new workmen's compensation board and shall continue in office for the terms for which they were appointed. Provisions are made for the appointment by the Governor to fill vacancies up to April 1, when the new law goes into effect. As the terms of the present members expire, new members shall be appointed for a period of six years by the Governor. The Governor shall designate one of the members as chairman of the board. The chairman becomes the administrative head of the workmen's compensation board and shall exercise the powers and duties in relation to the administration of the new chapter, heretofore vested in the industrial commissioner by chapter 50 of the laws of 1921 and acts amendatory thereof. The chairman shall preside at all meetings of the board and appoint all committees and panels of the board and shall perform all administrative functions as set forth in the new law. The chairman may make administrative regulations and orders concerning all claims and reports, notices of hearings and decisions, for certifying records; shall fix the time and place of hearing of claims and provide for the conduct of hearings; establishing of calendars, practice, etc. The chairman shall issue and revoke certificates and authorizations of physicians as provided in 13-a of the Workmen's Compensation Law, and license all medical bureaus and x-ray and other laboratories and shall have and exercise all powers not otherwise provided for in relation to the administration of the law, heretofore expressly conferred upon the industrial commissioner by any provisions of chapter 13-c or of the labor law. Under general powers and duties of the workmen's compensation board is the power to hear and determine all claims for rating, compensation, or benefits relating to special funds; to require medical service for injured employees; to approve and fix attorney's fees and claims for medical service in out-of-state cases and in noninsured cases; to excuse failure to give notice; to approve agreements; to modify or rescind awards; to make conclusions of fact and rulings of law; to certify questions to the Appellate Division of the Supreme Court; to enter orders in appealed cases; and to perform such other duties in connection with claims of claimants, penalties, and awards, as were heretofore done by the industrial commissioner; to hear and determine claims under the occupational disease act; to order physical examinations, etc.

The new workmen's compensation board is deemed to be a continuation of the industrial board provided for by the provisions of the labor law, and all proceedings pending before the industrial board are now transferred to the workmen's compensation board. All reviews, hearings, etc., are to be conducted by any panel of the board consisting of not less than three members thereof and the order, decision, or determination of a majority of the members of a panel of three shall be deemed the order of the board, unless the board on its own motion modify or rescind such order or determination. Three panels shall be constituted at all times, the chairman assigning the members to the panels; at least one member of each panel shall be an attorney. The panel shall be so constituted that the members of the Board shall alternate in their periods of service together thereon. When a number of proceedings remains pending before the board for a period in excess of thirty days, members of the board shall hold hearings and otherwise act in the discharge of their duties evenings and at other convenient times on all days of the week except Sundays, in addition to such other times as they would perform such duties in the ordinary conduct of business, in order to expedite the disposal of claims. The chairman may and shall, when directed by the Governor, prescribe the hours and times for such additional performance of duties by the members of the board. A member of the board may be designated by the chairman to act individually in the hearing and determination of any claim or conduct any investigational hearing or inquiry except in reviews which must be heard by the board or a panel thereof. Members of the board and referees are given the

usual power to issue subpoenaes, to hear testimony, and to take depositions of witnesses in the manner prescribed by law. Neither the industrial commissioner nor any board or ment of labor shall in any or reverse any decision shall the industrial commissioner or any board or other agency of the department of labor supervise or control the board or its members in the exercise of any powers or in the performance of any duties under the new law. The chairman of the board is given the power to appoint a secretary and to remove same and fix the salary of the secretary, whose duties and administrative powers are assigned or delegated by the chairman of the board. Vacancies on the board are filled by the Governor, who may remove the chairman or any member of the board for cause after charges and hearing. Members of the board shall devote their entire time to the duties of the office.

The chairman receives an annual salary of $10,000, the other members $8,500.

[illegible] ...s of workinistration the chairnits of the appropriation available therefor, to initiate studies and surveys, to observe operations in other states, to conduct research, and to make investigations in the entire field of workmen's compensation, within and without the State of New York. The chairman is also hereby authorized to accept a gift, grant, or contribution of funds to be used in his discretion to carry out the purposes of this subdivision and shall in the annual report of the board set forth the progress of same.

The chairman of the board may appoint officers and employees, including such investigators, statisticians, examiners, and other assistants as may be necessary for the exercise of the powers and the performance of the duties of the chairman of the board.

In the future, referees shall be appointed by the new board. A referee shall devote his entire time to the duties of his office at a salary to be fixed by the board within the appropriation made therefor. The referees shall carry out duties heretofore assigned to these officers. The chairman of the workmen's compensation board shall designate an employee of the board to act as secretary of the medical appeals unit of the industrial council. These three medical members of the industrial council shall consider all matters connected with the practice of medicine submitted to it by the workmen's compensation board or chairman thereof. The duties of the Medical Appeals Unit of the Industrial Council shall be similar to their duties under the law of 1944 in relation to physicians, compensation medical [illegible] ...ised authorization to do compensation work by the medical practice committee or any medical society or board and make recommendations to the chairman of the workmen's compensation board instead of to the industrial commissioner. It also shall have power to review the revocation of the authorization of any of the above by either the Medical Practice Committee or the medical society workmen's compensation board and make recommendations to the chairman of the new workmen's compensation board. The medical appeals unit may reopen matters and receive further evidence and its decision and recommendation shall be advisory to the chairman of the workmen's compensation board and not binding or conclusive upon him.

The industrial commissioner has the power to make, amend, and appeal regulations necessary for the internal administration necessary for the department of labor not in conflict with the rules adopted by the workmen's compensation board or the board of standards and appeals for the enforcement of the labor law.

Section 24-a is amended to provide for representation before the workmen's compensation board instead of the industrial board and sets up the require- [illegible] ... not to exceed the sum of $100 annually. The fees are paid into the special fund under subdivision 8 of section 15.

The board shall have such tests of character and fitness with respect to applicants for licenses and such rules governing the conduct of those licensed as may be necessary and the board shall maintain a registry or list of persons to whom licenses have been issued. Such licenses may be revoked by the board for cause after a hearing by the board. Licenses are issued for one year. No person, firm, or corporation, other than an attorney and counse[illegible] ...senting or ... fore the bo[illegible] ...g hearings, etc., unless he shall be a citizen of the United States or a corporation organized under the laws of the State, and shall have obtained from the bo[illegible] ... to a reg[illegible] ... nor shall the provisions of the above section apply to a regular employee of an insurance carrier appearing on behalf of his employer, but the board may prohibit the appearance of any such employee for cause.

At the time this report was written, the bill was in the hands of the Governor and it is believed he will sign it.

It is hoped that the new setup will materially enhance the efficiency of the department in relation to claims of injured workers. It is hoped that the relations of the medical societies to the chairman and members of the board will be close and cordial to the end that the medical aspects of the workmen's compensation law will be more effectively carried out in the interest of the injured workers of this State.

Total Physicians Qualified.—To date 20,860 physicians have been qualified and recommended for authorization by the county medical societies' compensation boards. The number qualified in each county follows:

[illegible] ...Seneca, 47; Steuben, 95; Sullivan, 41; Suffolk, 206; Tioga, 41; Tompkins, 72; Ulster, 114; Warren, 62; Washington, 52; Wayne, 69; Westchester, 919; Wyoming, 47; Yates, 27.

Communication No. 56.—

"Dear Doctor:

"We have been requested by the Department of Labor to survey the present facilities available for medical examinations at the various points of hearing throughout the State in order to determine whether the present available space and facilities are adequate.

"I am enclosing a copy of the letter received from the Department which contains the locations of the points of hearing in your County and the minimal facilities that the Department believes should be available.

"It would be appreciated and advisable for you to appoint a committee of physicians within your county to make an inspection of these facilities and review the method of conducting medical examinations, facilities presently available, the nature and the scope of the examinations. After making this survey, the committee is requested to submit a separate report on each point of hearing, commenting on the facilities and incorporating its recommendations.

"I desire to call your particular attention to the request contained in the letter from the Labor Department—that the committee suggest a more appropriate place in the County (including hospitals) that might be available to conduct these hearings and examinations.

"Should you desire any information, particularly the dates on which hearings will be held at the various hearing points designated, I would suggest that you communicate with the Assistant Industrial Commissioner who represents the Industrial Commissioner in your County.

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"Very truly yours,
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PART XI

Medical Licensure

The Council Committee on Medical Licensure was continued with the same personnel:

F. Leslie Sullivan, M.D., *Chairman*.....Scotia
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REPORT

This is the third annual report of the Committee of Medical Licensure. Medical licensure statistics for the year 1943 are interesting and gratifying. As a result of the accelerated program in medical education a considerable increase occurred in numbers taking examinations in 1943 as compared with the preceding year. However, fewer licenses were actually issued last year than in 1942 because many graduates examined in December did not receive licenses until early 1944, hence they do not appear in this report. Their licenses will appear in the statistics to be published next year. In addition some physicians entered the Army before becoming licensed and fewer foreign graduates applied.

For a time there were large annual increases in foreign graduates examined, so that in 1940 there were over three times as many tested as in 1936. Since 1940 there have been annual decreases. The number last year was about half that of 1940, although it was still almost double the 1936 figure. Throughout the years failures among foreign graduates have been high. Nearly 50 per cent of foreign graduates examined failed in 1943 as compared with 1.5 per cent failures of graduates of approved schools and 38.4 per cent failures from unapproved schools.

The total number of licenses issued by the medical examining boards of the forty-eight states, the District of Columbia, Alaska, Hawaii, and the Virgin Islands was 8,276; 5,974 were issued after examination and 2,302 by reciprocity and endorsement. This compares favorably with the total of 8,557 for 1942. In the State of New York 912 licenses were issued as against 1,330 for 1942 and 1,173 for 1941; in California, 706 as against 740; Illinois, 506, three less than in 1942. Pennsylvania licensed 520, four more than in 1942. Your committee has used these for comparison each year because they annually license more than 500 candidates.

New York State in 1941 licensed one seventh of the total number licensed in the United States, District of Columbia, and possessions; in 1942, one sixth of the total; the number has now dropped this past year to one ninth of the total. In 1941 this state licensed 439 foreign physicians, in 1942 the Department licensed 698, and in 1943, 361, a decrease of 337.

It does not follow that all physicians certified in a given year after examination were tested in that year. In twenty-three states, the District of Columbia, Alaska, Hawaii, and Puerto Rico the internship is a requisite for practice, but in some a physician is permitted to take an examination before completion of the internship, and, if he is successful, the license is withheld until the completion of the internship. Licenses are also withheld in some states for proof of citizenship and minor technicalities. In others the licenses of those examined in December are dated and issued in the following year. This was particularly true last year, with two graduating classes from the medical schools operating under the accelerated curriculum. Most of the schools granted M.D. degrees in March and December. While many of the December graduates were examined for medical licensure on the M.D., for the most part their examination papers could not be graded in sufficient time for them to receive licenses during the last calendar year.

Twenty-three states, the District of Columbia, and the territories and possessions licensed fewer than 100. The smallest number of licenses (4) was granted in North Dakota. None were licensed by examination in Nevada, Wyoming, or the Virgin Islands, and only one physician was registered by this method in New Mexico and in North Dakota. Eleven boards (notably California, Connecticut, the District of Columbia, and Utah) licensed more physicians by reciprocity or endorsement than by examination. Florida, Idaho, Massachusetts, Rhode Island, and Hawaii have no reciprocal agreements, but with the exception of Florida these states endorse diplomates of the National Board of Medical Examiners.

Increases in the number of physicians registered last year as compared with that reported for the year 1942 were noticeable in Alabama, Louisiana, Maine, and Maryland, while more pronounced decreases in registration were effected in Indiana, Mississippi, Nebraska, New York, Texas, Virginia, and Wisconsin. In Indiana and Texas this may be due

partially to the fact that the medical schools of those states accelerated their curriculum at an earlier date. In New York there was also a large reduction in

Twenty-
possessions
Hawaii, 13;
the Virgin

Islands, 7.

Throughout the year 8,392 were examined, of

[illegible]

porations of other countries, seven medical schools

states who obtained the legal right to special practice by the osteopathic board are excluded from these compilations.

The 8,392 examinees represented 6,427 graduates

who graduated from approved medical schools no longer operating, with 5.0 per cent failures; 1,031 graduates of faculties of medicine located in countries other than the United States and Canada, 49.8 per cent of whom failed; and 757 graduates of unapproved schools with 38.4 per cent failures. In 1943 there were 599 fewer foreign graduates examined, largely accounted for by the reduction by 501 in numbers of such candidates tested in New York.

The most striking change in numbers examined is the increase in candidates from approved medical schools.

There were 4,905 of these in 1942 and 6,427 in 1943, an increase of 23.7 per cent. This may

[illegible]

aminations in 1943 was 8,392 as compared with 7,181 the preceding year, an increase of 14.4 per cent. This increase is not seen in the tabulation showing licenses issued because the licenses of many examined in December, 1943, will be dated 1944. In the calendar year 1943, while no compilation of recent graduates has been made, only 1.5 per cent of the 6,427 graduates of the approved medical schools in the United States failed.

Twenty-nine approved schools in the United States had no failures before medical licensing boards, thirty had less than 5 per cent, and seven between 5 and 10 per cent.

The source of candidates for licensure last year on the basis of examination is further tabulated in Table 1, giving totals for five groups, namely, approved medical schools in the United States, those from Canada, schools and unapproved institutions. The greatest percentage of failures represented two groups—foreign scho[illegible]

Consolidated Examinations.—In the calendar year 1943, 6,427 graduates of approved medical schools in the United States were examined by medi-

TABLE I.—SOURCE OF CANDIDATES EXAMINED, 1943

Medical Schools	No.	No. Examined	No. Passed	No. Failed	Percentage Failed
Approved in United States	67	6,427	6,334	93	1.5
Approved in Canada	8	76	64	12	15.7
Extinct	7	101	96	5	5.0
Foreign	100	1,031	518	513	49.8
Unapproved schools	14	757	466	291	38.4
Totals	199	8,302	7,478	914	10.9

instances schools having a high percentage of failures before licensing boards had few, if any, failures before the National Board. In these consolidated figures the percentage of failures for approved medical schools in the United States was 1.4 per cent. Of Canadian schools 15.7 per cent of the graduates failed state tests and 14.3 per cent the combined tests. Only thirty-one graduates of foreign faculties of medicine were admitted to the National Board's final examination, while 1,031 were examined by state licensing boards. The National Board does not admit to its examination the graduates of unapproved medical schools in the United States.

Failures.—The United States is divided into two groups—the thirty states in which approved four-year medical schools are located, and those, including Alaska and Hawaii, which have no approved medical school within their boundaries. Presented is the number who failed state board examinations and were graduates of a medical school in which they were examined and for comparison, the number of graduates licensed in a given state who obtained their [illegible]

Th[illegible]
chuse
21.3 [illegible]
educa

our State of New York 3.4 per cent of those who studied medicine in eight of the nine schools located in this State and who appeared for licensure here in 1943 failed, and 9.5 per cent who obtained their medical training in thirty-four schools located in other states failed. Only twenty-three physicians failed examinations in the state in which the medical school they attended was located, and twenty schools had no failures from schools within their boundaries.

[illegible]

requir[illegible]
75 per
case o

applicant is entitled to another examination in those subjects within twelve months. A few states con-

* See conclusion of this article for action of Council on this question.

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Twenty-five of these states besides Alaska and Puerto Rico reciprocate with specifically indicated states Twenty-four of them, including five which have specific reciprocity agreements, as well as the District of Columbia, are given discretionary powers under the medical practice acts. New York has no reciprocity agreement with any state. However, the [illegible] discretionary upon the department to issue them licenses. The states in which diplomates of the National Board of Medical Examiners and returned officers of [illegible] licensure o [illegible] indicated. [illegible] sional practice, oral examination, and internship, are recorded, as is also the fee for a license without written examination. Citizenship prerequisites are also indicated in thirty-one states In some states physicians of Canadian birth are exempt from the citizenship requirements. Few states will accept graduates of foreign faculties of medicine on a reciprocal basis Additional requisites of exemptions are mentioned.

The number of [illegible] to practice medic [illegible] examination on p [illegible] tials is given in T [illegible] tered who presen [illegible] the District of Columbia, Canada, and foreign countries, or the certificate of the National Board of Medical Examiners or one of the government services California issued licenses to 355 physicians by this method and New York to 279 Four other states endorsed 100 or more candidates, namely, Illinois, 100, Michigan, 105, Ohio, 110, and New Jersey, 140 The lar- [illegible] same type of credenti [illegible] senting certificates of [illegible] Examiners On the basis of the National Board's certificate 215 were certified by New York and 94 [illegible] without written examination in six states, California, 6; Kentucky, 4, and 1 each in Missouri, North Carolina, Texas, and Wisconsin

On the basis of a license from one of the territories seven physicians were registered in two states—California and New York. Two physicians presented to the California board licenses from Alaska and four, a certificate issued in Hawaii. One physician secured a license in our State presenting for registration by this method a license from Puerto Rico.

Diplomates of the National Board of Medical Examiners secured licenses in forty states and in Hawaii. Six states endorsed the certificate of 25 or more physicians The greatest number accepted by any one state was our State of New York, where 215 diplomates secured licenses to practice medicine.

Fewer than 25 physicians obtained reciprocity licenses in twenty-two states There has been a noticeable decrease in physicians who migrated to other states, as evidenced by a reduction of 170 as compared with the number so registered in 1942. This probably is a condition related to the war.

[illegible] Pr [illegible] me [illegible] by death in the same period was 3,382. It would appear, therefore, that the physician population in the United States last year was increased by 2,570. In view of the accelerated curriculum with two classes graduating from the majority of schools in 1943, one might expect that additions to the profession should be considerably higher. This is in reality the case at the present. However, many physicians who obtained M D degrees in December of 1943 were not able to receive licenses until early in the year 1944, owing to administrative details. An accurate analysis can be made in 1945 when data for the current year are available

The greatest number of physicians in any one state, 683, was added to the profession in the State of New York. Be[illegible] added more than [illegible] more than 300 T [illegible] about 200, but in [illegible] [illegible] Wisconsin. In New York 220 fewer appear in the tabulations as the result of the reduction in the [illegible] in three years in the profession; [illegible] ful written exam [illegible] endorsement. In the same period 80,393 licenses were issued, 56,003 by examination and 24,390 by endorsement or credentials. Thus 26,446 licenses were obtained by physicians who had previously been licensed to practice medicine. Estimated figures indicate that on February 1, 1944, the number of physicians in continental United States, including those licensed in 1943, was 186,496. Excluding physicians who are in military service, engaged in full-time hospital work, retired, not in practice, or in full-time teaching, there remain about 100,000 physicians in private practice, some of whom are part-time teachers.

TABLE 3.—NO OF LICENSES ISSUED BY NEW YORK STATE BY RECIPROCITY AND ENDORSEMENT

Source of former license or Credentials	
California	4
District of Columbia	2
Indiana	3
Iowa	2
Louisiana	3
Maryland	11
Minnesota	1
Michigan	4
Missouri	2
Nebraska	1
North Carolina	3
Oregon	2
Pennsylvania	215
Texas	2
Virginia	3
Vermont	3
Wisconsin	1
National Board of Medical Examiners	215
U S territory and possessions	1
Canadian and foreign	1

Licensure Under the Accelerated Program.—All states, Alaska, Hawaii, and Puerto Rico have adjusted their licensure legislation or board rulings, where adjustments were required, so that graduates

TABLE 7.—REQUIREMENTS OF CANDIDATES FOR MEDICAL LICENSURE ON THE BASIS OF CREDENTIALS OBTAINED IN COUNTRIES OTHER THAN THE UNITED STATES AND CANADA

	Admitted to Examination	Admitted by Endorsement of State License*	Citizenship	Basic Science Certificate	Internship in Hospital in United States	Further Medical Training	Examination Fee, Dollars	Other Requirements
Alabama	+	..	+	..	+	..	10	[1]
Arizona	Not accepted							
Arkansas (reg. and homeo. boards)	Not accepted							
California	+	+[21]	..	..	+[18]	+[18]	25	[11]
Colorado	+	..	1st P	+	..	..	25[4]	[2]
Connecticut (regular board)	+	..	1st P	+	..	..	25	..
Delaware (regular board)	+	..	+	..	+	..	25	[5, 22]
District of Columbia	..	+[6]	..	+	+	..	25	[19]
Florida	+	..	+	+	..	+[7]	25	..
Georgia	+	..	+	..	..	+[7]	20	..
Idaho	+	..	+	..	+	..	25	..
Illinois	+	..	1st P	..	+	..	25	[8]
Indiana	+	+	..	..	..	+[7]	25	..
Iowa	+[10]	..	+	+	+[2]	+[2]	25	..
Kansas	+	..	+	..	..	..	25	[11]
Kentucky	Not accepted							
Louisiana (reg. and homeo. boards)	Not accepted							
Maine	+	+	+	..	+	..	27	[11]
Maryland (reg. and homeo. boards)	+	..	1st P	..	+[26]	..	25	[13]
Massachusetts	+	..	1st P	..	..	..	25	..
Michigan	+	+	+	+	+	+[7]	25	..
Minnesota	Not accepted							
Mississippi	+	..	+	..	+	..	10[3]	..
Missouri	+	+	+	..	..	..	15	..
Montana	Not accepted							
Nebraska	+	+[25]	+	+	..	..	25	..
Nevada	Not accepted							
New Hampshire	+	+[12]	+	..	+	..	20	..
New Jersey	+	+	+	..	+[17]	..	25	..
New Mexico	Not accepted							
New York	+	+	1st P	..	..	..	25	[14]
North Carolina	Not accepted							
North Dakota	+	..	+	..	+	..	25	[11]
Ohio	+	+	+	..	..	..	25	..
Oklahoma	Not accepted							
Oregon	Not accepted							
Pennsylvania	+	..	1st P	..	+	..	25	..
Rhode Island	+	..	1st P	+	+[16]	+[16]	20	[13]
South Carolina	Not accepted							
South Dakota	+	..	1st P	+	+[17]	..	20	..
Tennessee	Not accepted							
Texas	+	+	+	..	..	..	25	..
Utah	Not accepted							
Vermont	Not accepted[23]							
Virginia	+	..	+.	[15]	[15]	+	25	[24]
Washington	+	..	1st P	+	+	+[7]	25	[9]
West Virginia	Not accepted							
Wisconsin	Not accepted							
Wyoming	Not accepted							
Alaska	+	+	+	..	+	..	25	..
Hawaii	+	..	+	..	+	..	25	[13]
Puerto Rico	+	+	+	..	+	..	25	..

* Refer to chart of "Reciprocity and Endorsement Policies" for further data.

[1] Certificate of National Board of Medical Examiners and licensure in country in which school of graduation is located.

[2] Internship or one year in medical school in United States.

[3] Certificate of National Board of Medical Examiners.

[4] For graduates of last five years; if more than five years $50.

[5] Residence of one year in Delaware.

[6] If similar privileges are accorded licentiates of District of Columbia by licensing agency of jurisdiction from which applicant comes.

[7] Senior year in class A medical school in United States.

[8] Graduates of European medical colleges after July 1, 1936, Switzerland excepted, shall not be eligible for licensure. Graduates prior to this date may be accepted for the regular written and clinical examination after completing rotating internships in approved hospitals in Illinois.

[9] Enemy aliens not accepted.

[10] Application must be filed six months prior to date of examination.

[11] Licensed to practice medicine and surgery in country in which school of graduation is located, otherwise required to complete senior year in approved medical school in United States.

[12] Diplomates of National Board of Medical Examiners eligible.

[13] License to practice medicine and surgery in the country in which the school of graduation is located.

[14] Matriculants after Jan. 1, 1940, not accepted.

[15] At the discretion of the board.

[16] Internship and graduate work.

[17] Internship completed in foreign countries after July 1, 1934, not acceptable.

[18] Rotating internship in approved hospital in the United States or completion of senior year in class A medical school in the United States.

[19] These requirements apply also to graduates of Canadian schools.

[20] Graduates from foreign medical colleges accepted if they present also a diploma from an approved medical school in the United States.

[21] Provided standard was the same as California on the same date.

[22] Degree from an American medical college acceptable to the Medical Council of Delaware required.

[23] Diplomates of the National Board of Medical Examiners accepted. Citizenship required.

[24] Very limited number contracting to practice in rural districts may be accepted.

[25] Effective July 1, 1943.

[26] Homeopathic board requires one year internship in homeopathic hospital in the United States.

under the accelerated medical program are eligible [illegible] 1942 and 1943.

Acceleration of Premedical Courses.—The mini- [illegible] tion and Hospitals recommended that for the duration of the war premedical education, including satisfactory courses in physics, biology, and chemistry, be included within two calendar years. Such a program was adopted by practically all medical schools of the country. The Army Specialized Training and Navy V-12 premedical programs call for less than two years of college training, but in both of these programs the studies are continuous and provide for the student carrying more than the normal peacetime studies per semester. Both the Army and Navy programs provide for work well in excess of the sixty semester hours constituting the normal two academic years of medical study.

With the exception of California, Connecticut, and Nebraska, the state licensing boards, by statute in the majority of instances, require that an applicant for licensure must present evidence of having completed two years of college training. Most states indicated that their board will accept applicants graduated under the accelerated plan of approved medical schools, thereby recognizing the certification of the premedical training by the dean of the medical school. This State, New York, requires the Medical Student's Qualifying Certificate. It would appear that the accelerated premedical requirements of the Army and Navy premedical programs will probably offer no licensure difficulties.

[illegible] in some industrial and rural sections of the country. [illegible] calendar year are shown in Table 5.

TABLE 5.—Temporary Permits

State	Permit Valid For:	Permits Granted
Arizona	3 mos	98
Delaware	1 yr.	2
Florida	6 mos after cessation of hostilities	12
Georgia	Next board meeting	12
Kentucky	1-5 yrs.	8
Louisiana	Next board meeting	3
Maine	Duration of war	7
Nevada	2 yrs.	14
New Mexico	Next board meeting	13
North Dakota	Duration of war	7
Pennsylvania	6 mos after cessation of hostilities	2
Virginia	Next board meeting	0
Washington	Next board meeting	52
West Virginia	Next board meeting	16
Wyoming	Next board meeting	5
	Total	244

Annual Registration.—Twenty-seven states, the District of Columbia, Alaska, and Hawaii require physicians to register their license annually; New York and Missouri of that number issue licenses biennially (Table 6). Wisconsin was added to this list in 1943 and West Virginia no longer requires annual registration of medical licenses. With one exception, Colorado, the requirement has been waived for physicians in military service. In some instances legislative action was necessary to obtain a waiver.

TABLE 6

Alaska	Hawaii	New York*
Arizona	Idaho	North Dakota
Arkansas	Iowa	Oklahoma
District of Columbia	Kansas	Oregon
California	Louisiana	Pennsylvania
Florida	Minnesota	Texas
Colorado	Missouri*	Utah
Georgia	Montana	Washington
Connecticut	Nebraska	Wisconsin
Delaware	Nevada	Wyoming

* Biennial registration.

Candidates Examined 1939-1943.—During this period 38,791 examinations were given for all states and territories; 32,396 were successful, and 6,395—16.5 per cent—failed. New York State leads in the number of examinations given. In this State there were 4,572 successful tests in a five-year period. Other states examining more than 2,000 include Pennsylvania, 2,403; Illinois, 2,351; and California, 2,145. More than 1,000 were examined in seven other states and passed, namely, Maryland, Massachusetts, Minnesota, Missouri, Ohio, and Texas. The greatest percentage of failures occurred in three states—Massachusetts, with 51.2 per cent; New York, with 45.7 per cent; and Connecticut, with 34.1 per cent. The high percentage in Massachusetts is due to the fact that the licensing board has been required by law to admit to its examinations [illegible] of whom [illegible] ntage of [illegible] umber of graduates of foreign faculties of medicine, who likewise fail repeatedly. The percentage of failures in all states has decreased from 20.6 per cent in 1940 to 10.9 in 1943, which is the lowest figure since 1937.

[illegible] nite trend in the numbers annually registered from 1906 to 1933, although in 1918 the number registered dropped to the all-time low record of 4,231. After 1933 there was an upward trend for a time followed by a decline which terminated in 1942. The decrease of more than 1,200 in 1918 was due to the sudden withdrawal of physicians and recent gradu- [illegible] result of the accelerated curriculum and the universal effort on the part of the medical leaders of the country to maintain a steady flow of physicians for both civilian and military practice. In 1943 more [illegible] the migration of physicians to the country beginning in 1936 there was a resultant licensure rise, until, in 1940, they surpassed even the 1904 figure. This rise is also attributable to the inability of graduates

of unapproved schools to obtain licensure successfully. In the last two years the number of foreign graduates applying for licensure has decreased considerably.

Physicians Examined on the Basis of Credentials Obtained in Countries Other Than the United States and Canada.—The council of Medical Education and Hospitals does not grade or classify medical schools outside the United States and Canada. It does not attempt to evaluate institutions which it is not in a position to visit to determine if they meet the minimum essentials of an acceptable medical school as outlined by the Council. This was true even before the war.

In New York State no matriculates of foreign schools after 1940 would be permitted to qualify for examination unless, in addition to other requirements, the Department of Education or its agent had had an opportunity to inspect and approve the school from which the candidate was graduated. The requirements of candidates for medical licensure in New York State on the basis of credentials obtained in countries other than the United States and Canada are given in Table 7.

Eighteen states reported that the holders of such credentials are not eligible for licensure. Eighteen states, Alaska, Hawaii, and Puerto Rico require full citizenship and two states naturalization papers as a condition precedent to taking the examination. California, Indiana, and the District of Columbia make no reference to citizenship. In some states the recognition or nonrecognition of such individuals is by rule of the board, in others the provision is by statute. Ten states require a certificate from the state board of examiners in the basic sciences. Eighteen states, Alaska, Hawaii, and Puerto Rico require an internship in this country at the discretion of the board. In five states there is a requirement of a senior year's work in an approved medical school in the United States relative to physicians with foreign credentials who are to be examined for medical licensure. In 1943 in New York State 178 candidates from Germany's medical schools tried and passed the examinations while 184 failed. As in the past, Italy was runner-up with 48 who passed our examination and 73 who failed. France registered 26 successful examinees and 27 failures. Scotland had 20 successful examinees and 3 failures. Switzerland had 42 who successfully tried our state examination and 46 who failed. The greatest number of foreign graduates examined by any one state was 762 in New York, of whom 361 passed and 401, or 52.6 per cent, failed. No other state tested more than 54 of the physicians. Fewer than five were tested by 12 states and Hawaii. The percentage of failures in 59 schools was 50 per cent or higher.

TABLE 8

Year	No. Examined	Passed	Percentage Failed
1930	167	92	44.9
1931	158	91	42.4
1932	182	96	47.3
1933	200	129	35.5
1934	285	170	40.2
1935	437	303	30.7
1936	588	382	35.0
1937	920	637	30.8
1938	1,164	716	38.5
1939	1,691	839	50.4
1940	2,088	948	54.7
1941	1,717	698	59.2
1942	1,630	800	45.4
1943	1,031	518	49.8
Totals	12,258	6,509	46.9

The total for the fourteen years, 1930–1943, is presented in Table 8.

In this period 12,258 were examined, of whom 6,509 passed and 46.9 per cent failed. In 1943 there were 599 fewer examined than in the year previous, yet the percentage of failures was higher, and in 1940 the greatest number, 2,088, were examined. In that year 948 secured licenses. The highest percentage of failures occurred in 1941, when 59.2 per cent failed. At no time in this fourteen-year period did fewer than 30.7 per cent fail.

For a period of time there were large annual increases in foreign graduates examined, so that in 1940 there were over three times as many tested as in 1936. Since 1940 there have been annual decreases.

The number last year was about half that of 1940, although it was still almost double the 1936 figure.

After a study of medical licensure statistics for the past three years and after numerous conferences with the Department of Education and Board of Regents or representatives our course is clear cut as to what is necessary to maintain good educational standards to prevent discrimination against New York State medical school graduates and continue to license well-trained practitioners of medicine.

The Council of the Medical Society of the State of New York, through its Committee on Medical Licensure, has approved and sent to the Legislative Committee for action:

1. That citizenship as a requirement be incorporated in the Medical Practice Act.
2. In lieu of this, that an amendment similar to Article V, Section 2193 of the California Medical Practice Act be introduced. This is in addition to other accepted requirements that we now have in our Medical Practice Act and would be added to alleviate some of the difficulties we have encountered with foreign licensure.

"If the applicant is not a citizen of the United States, the country in which he has been licensed to practice medicine and surgery will admit to practice therein citizens of the United States upon proof of prior admission to practice medicine and surgery in some state of the United States or upon proof of matters similar to those required in this section for graduates of foreign medical schools."

3. The Department of Education has already instituted a ruling that the Department will not accept the credentials of a graduate of any medical college who matriculated after January 1, 1940, unless the Department of Education or its agent had had an opportunity to inspect and approve such schools.
4. In relation to the number of repeat examinations, a necessary change in the law would have to be made in Section 1258 of the Statutory Law. This insertion was approved by the Council:

"If a candidate fails on the first examination he may have a second examination without fee." This phrase is then to be inserted: "A candidate who, through failures of three examinations, has shown insufficient knowledge for admission to the practice of medicine, may be excluded from further examinations by the Department until he presents evidence of further study in a regular school of medicine satisfactory to the Department."

PART XII

Publications

The Publication Committee personnel during the year 1944–1945 has been:

Trustee, Thomas M. Brennan, M.D., [illegible] Brooklyn
[illegible] York
[illegible]
of the Society, acted.)
Treasurer, Kirby Dwight, M.D. ..... New York
Business Manager of JOURNAL and *Directory*, Dwight Anderson ..... New York
Literary Editor, Laurance D. Redway, M.D. ..... Ossining

Meetings of the Committee have been held monthly, except in July and August. Dr. George W. Kosmak, Managing Editor, likewise attended in his official capacity.

[illegible]

make it difficult for them to supply even the reduced amount of paper allowed by the War Production Board. The paper situation is not expected to get better until at least six months after the end of European hostilities. It will also be impossible to employ the staff required for compilation (ten extra clerical persons) due to employment conditions which are not expected to improve until after Germany is overcome.

[illegible] rious illness and subseving, the Council of the . Kosmak to undertake the NEW YORK STATE of November 15, 1944. tended with some difficulties and the indulgence of the Society is therefore requested in any shortcomings which may have eration of the It is a matter e very efficient several years, found it desirable to terminate her association with the JOURNAL because of the opportunities offered by another position. We were fortunate in securing the services of Miss Anne Merrill, who had acted as Miss Crisp's assistant for some time, as her successor. [illegible] Dr. [illegible] for [illegible] The [illegible] Brei [illegible] editorial policies, acceptance of advertisements, and other matters. It has made adequate reports to the Council at regular meetings during the year. The conduct of the business details connected with pub- carried out by Mr. [illegible] ue acknowledgment must be accorded for his valuable services.

Certain details of the make-up of the JOURNAL's pages may be of interest to the members and are detailed as follows:

Total number of pages in the 24 issues 2768
Total number of pages of text 1539
Total number of pages of scientific text [illegible] 959
[illegible]
(72 of these are cover pages)

SCIENTIFIC MANUSCRIPTS RECEIVED IN 1944

Annual Meeting Papers:
Number from 1944 Annual Meeting 85
(of 101 on Official Program)
Number of these already published 51
Number of these still in file 34
Unsolicited Manuscripts:
Number received 106
Number accepted 52
Number rejected 54

SCIENTIFIC MANUSCRIPTS PUBLISHED IN 1944

[illegible] 177
[illegible] 7
[illegible] 850
[illegible]
issue 36
Total number of Annual Meeting papers 91
(40 from 1943, 51 from 1944)
Total number of unsolicited papers 69
(including a number from 1943 and a few from 1942)
Therapeutics (Cornell University Medical College) 12
Diagnosis (Bellevue Hospital) 5

NONSCIENTIFIC MATERIAL PUBLISHED IN 1944

Editorials:
Total number of editorials published 71
Total number of pages of editorials 100
Proceedings of the State Society:
Annual Reports and Annual Meeting Program 86
[illegible]
and July 1 issues) 81
Total 167
General Features:
[illegible]
Illustrations:
Total number of illustrations published 189
Fillers:
Total number published 250

FINANCIAL REPORT

It is with the utmost difficulty that we have obtained enough paper to print the JOURNAL during the winter of 1944–1945. Our quantity has been cut by the War Production Board. This we were [illegible] allowance, and at the time this report is written our supply is being shipped in small quantities; barely enough for one issue, which, with delays in transit, makes inevitable further lags in the date our JOURNAL is issued. Readers are asked to bear with us if the JOURNAL reaches them some time after its date—our printers cannot print it until they have received the paper.

The financial condition of the publication has improved in 1944, producing a surplus over all ex-

penses of $30,252.29. This figure is without crediting $1.00 per year per member, which is required to conform to post office regulations regarding second-class mail matter. This creditable financial picture is due to two factors; war-boom prosperity and increased efficiency in the business department, which has occurred since we took into our own hands, from an outside contractor, the work of soliciting advertisements. Our two advertising representatives, Mr. Gordon Marshall and Mr. Charles L. Baldwin, Jr., have cultivated the field of acceptable advertisers most assiduously, under the direction of Mr. Dwight Anderson, Business Manager of the JOURNAL and *Directory*.

Improvement in the financial situation of the JOURNAL has been gradual over the last few years. In 1943, the surplus was $6,579.78, without crediting $1.00 per year per member. In 1942 and years preceding, the JOURNAL was conducted with a net cost (deficit). In 1942 this deficit was $8,367.27, in 1941, $15,847.58, and in 1940 it was $15,391.32. In prior years, for which we have records, the JOURNAL ran a deficit which varied from $1.50 to $2.50 per member per year.

The same setup is used for selling technical booth space at Annual Meetings. The 1944 Annual Meeting at the Hotel Pennsylvania showed gross income from this source of $20,870. After the expenses of the meeting were paid, there was a net surplus of $8,790.80. The gross sales amounted to approximately $1,840 more than at the meeting at the Waldorf-Astoria in 1942, which netted a surplus of $1,696.32.

The saving in cost of selling space in 1944, by having the management in our own office, instead of handling it through an outside contractor, was $1,992.

Medical Publicity

This year publicity has been directed chiefly to promotion of medical indemnity insurance, opposition to socialized medicine, and efforts to educate the lay public on the dangers to their health if a bill to license chiropractors, pending in the legislature, should pass. The last activity has been ancillary to the work of the Legislative Bureau and has been conducted in close cooperation with Dr. John L. Bauer, chairman of the Legislative Committee, and Dr. Robert R. Hannon, executive officer.

Releases.—As usual, we provided the press of metropolitan New York City and the State with publicity material on meetings of the District Branches and the postgraduate institutes conducted under the auspices of the Committee on Public Health and Education. All phases of the annual meeting held in New York were covered by the metropolitan press and the wire services, thus obtaining wide coverage in the daily and weekly newspapers throughout the State.

The plans of the Society in regard to developing voluntary medical indemnity insurance received excellent publicity, especially in New York City.

Bulletins.—The following club-talk bulletins were distributed to our regular bulletin list: "Not to Shudder but to Learn," which concerns cancer; "This Thing Called Flu," and "Vitamins and Where to Find Them."

Printed Matter.—Throughout the year we continued to receive requests for our printed leaflets and mimeographed material on socialized medicine and the Wagner-Murray-Dingell Bill. Because of numerous requests received for the leaflet, "Old Doc Politics," there was a new printing of 30,000 made, bringing the total distribution to 185,000. This leaflet was published to help fight the Wagner-Murray-Dingell Bill.

To better familiarize our membership and the public with the need and value of medical indemnity insurance a series of mailings was made. Four editorials entitled "Plain Talk," which appeared in the JOURNAL, were reprinted as a leaflet and distributed together with a special pamphlet, "Damned with Faint Praise." This mailing went to our membership, the Woman's Auxiliary, and to a list of key individuals throughout the State. A reprint of Dr. Herbert H. Bauckus' presidential message was included in the mailing.

Numerous requests from widely scattered organizations throughout the country were received and filled for "Plain Talk" and "Damned with Faint Praise."

In January all members of the Society and the Auxiliary received a pamphlet, "Physician, Decide," which was printed to answer questions and doubts about voluntary medical insurance plans among members of the Society and to give information on the three approved plans already in operation in the State.

Chiropractic.—The most intensive project undertaken was assistance to the Legislative Bureau in defeating the Seelye-Brees Bill in the State Legislature. A 48-page booklet, "Medicine Men and Men of Medicine" by Charles M. Bayer, was published especially for the purpose of defeating this bill, although its educational value will make it of permanent use. The booklet explains the development of the healing cults and presents an elementary explanation of scientific medicine. The menace of the cults, especially chiropractic, to the public health, is emphasized.

A one-page flyer giving briefly the reasons against chiropractic was printed for quick distribution to those who, when informed, would write to legislators. A special representative, Mrs. Harold Fleming, was employed to visit several upstate cities to assist in organizing community groups and work with county medical society officials making effective protests to their legislators.

Distribution.—In terms of quantity distribution, the following figures show the wide use of our material: "Damned with Faint Praise," 24,917; "Plain Talk, 1," 20,292; "Plain Talks on Medical Indemnity Insurance," 23,005; "Insure Your Self-Respect" (reprint of a JOURNAL editorial distributed to chief editorial writers, science writers, and syndicates), 1,309; "Physician, Decide," 20,000.

As of February 20, 1945, more than 35,500 copies of "Medicine Men and Men of Medicine" and 49,000 leaflets explaining briefly the dangers of licensing chiropractors had been distributed. Also 10,000 copies each of three editorials against chiropractic which had appeared in the *Buffalo Evening News*, the *New York Times*, and the *Ogdensburg Journal* were distributed. A flyer was sent to legislators and others showing that passing of the chiropractic bill would stimulate more proposals for licensing the other healing cults, with a résumé of such proposed legislation in other states.

Public Service and Miscellaneous.—A steady stream of requests for information and printed matter on socialized medicine, compulsory health insur-

ance, voluntary
ularly about t
to the Bureau
was supplied to civic groups, women's clubs, forums, high-school and college students, medical students, and other indiv
connection Miss
made talks and
of seventeen grc
civic clubs, and women's club federations. She also held conferences with Woman's Auxiliary leaders throughout the year, seeking to coordinate their activities with those of the Society. Acknowledgment should be made of her excellent contribution to the work of the Public Relations Bureau.

Mr. Anderson and Miss Lyon attended all the
quest.

The Committee on Medical Publicity has the following members:

Dr. Floyd S. Winslow, *Chairman*
Dr. Francis N. Kimball
Dr. Frederick M. Miller, Sr.

PART XIV

War Participation

The Council transmits the following report of its Committee on War Participation, which has the following personnel:

Louis H. Bauer, M.D., *Chairman*. .. Hempstead

REPORT

The War Participation Committee has had very little to do this year with selection of physicians for the armed services. Most of the physicians selected during the past year have been from among the recent graduates.

Numerous calls have been made on the Committee for physicians to serve on induction boards. These requests have been handled by the Secretary's office.

The chief proble

determine their desires as to postgraduate training on their return to civil life. A letter and a questionnaire were drawn up. These have been sent to every man in the service and as soon as they are returned they will be processed.

Another questionnaire has been prepared and sent to every hospital in the State to determine the number of internships, residencies, and opportunities for medical observers which will be available to meet the desires of returning veterans.

It is also planned to find out, through the JOURNAL, the number of physicians who desire assistants.

Many returning veterans may desire financial assistance which is provided by Congress in the so-called G.I. Bill. The provisions of this bill as it affects physicians have been published in the *Journal* of the American Medical Association and this information will be made available to veterans. It was hoped by the Committee that arrangements might be made to finance loans locally where necessary and these loans to be backed by the State Society. A legal opinion, however, has been rendered that the State Society cannot, under the law, either make or endorse such loans. Therefore, this proposition has been regretfully abandoned.

The Committee feels that the Society has no

March 15, 1945

Dear Fellow Member:

T
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of the Council
New York has
posal has been unanimously approved by that body, a plan to aid in the restoration of the members of the Society now in service, to the practice of medicine upon their relief from duty or discharge from the armed services.

This plan proposes to aid in every way the restoration of all of its members now in service, or who have been in service, and of those other regularly licensed men who have had service and who join their local county medical society after discharge from the service; even though they have not been members before they entered the service.

In order to accomplish these purposes it is necessary to make a survey in order to determine the needs, desires, and the nature of the aid you will require to determine these needs, and in order to effect the full intent of the plan, a questionnaire is enclosed to aid you in indicating what you wish to have us do. In order to put this plan promptly into operation, your cooperation in completing the questionnaire at your earliest convenience is requested.

Above all things, we want you to know that your State and County Societies are not going to let you down. They are proud of you, proud of your record, and proud of the reputation of organized medicine which
We bespe
you the bes

Fraternally yours,
LOUIS H. BAUER, M.D., *Chairman*
War Participation Committee

MEDICAL SOCIETY OF THE STATE OF NEW YORK
War Participation Committee
292 Madison Avenue
New York 17, N. Y.

Name... Rank... Age ...
Organization ..... Address .....

Date of
Depende

tions...

1. Residence, location, and type of practice prior to entry into service.....
General Practice?..... Specialty?.....
Residency? (type).....Internship?.....

Federal Government Position?.....
Industrial Medicine?.....

2. Do you desire or intend to remain in the Army, Navy, Public Health Service, or Veterans Administration after termination of the Emergency?....If yes, please state which.....
3. Do you desire or intend to return to the practice of medicine in the location you were in when you entered the Service? Yes....
No.....
4. Do you desire to re-enter the practice of medicine in a place other than that from which you entered the Service? Yes.... No.... If yes, type of locality desired.....
.....
5. Do you desire postgraduate work after leaving the service? Yes.... No.... Refresher courses....Residency.... Specify in detail the particular field in which you desire the courses or residency, i.e., medicine, surgery, orthopedics, ophthalmology, etc.....
.....
6. Do you desire a general rotating internship? Yes.... No....
7. Do you desire an assistantship with a specialist? Yes.... No.... Where?.....
Type?.....
8. Will you need or desire financial assistance for which you may be eligible under the present Federal Veterans Aid Law? Yes.... No....
Approximately what amount?.....

Signed.....
Date.....

General Matters

Convention.—The Council Committee on Convention—Dr. John L. Bauer, *Chairman*, Brooklyn; Dr. Walter P. Anderton, New York; and Mr. Dwight Anderson, New York—submits the following report.

REPORT

In the years 1943 and 1944, the Medical Society of the State of New York carried on with the approval of the powers in Washington the usual convention embracing the House of Delegates, the Scientific Sessions, the Scientific Exhibits, and the Technical Exhibits. By utilizing, by including in our programs as much wartime medicine as possible, covering the various fields in surgery and medicine, we received the approval and commendation of Washington, had representatives of the Army and Navy on our programs, and the attendance of many doctors in the employment of the U.S. Government. In 1943, transportation privileges were not yet too difficult to obtain, and the timely and helpful nature of our programs was recognized. So many other scientific bodies had given up their conventions that probably the Convention held in Buffalo was the best attended and the most outstanding success of any New York State medical convention ever held there.

In 1944 the Convention in New York City was held after more deliberation and consideration on the part of Washington, but with their final, full approval. In 1943 and 1944 all social activities, such as banquets and dinners, were excluded. The Conventions were purely scientific. So this year, 1945, your Convention Committee, upon action by the Council, proceeded to make full preparations for the usual Convention to be held in Buffalo on April 30 and May 1, 2, and 3.

On November 11, 1944, the Convention Committee and subcommittees on Arrangements, on Scientific Programs, on Scientific Exhibits, and on Technical Exhibits met together at Hotel Statler in Buffalo. About twenty-five members were present.

Dr. J. G. Fred Hiss, of Syracuse, Chairman of Scientific Exhibits, had in readiness a plan for the exhibits to be of educational value, part and parcel of the scientific program.

Dr. Duncan W. Clark, of Brooklyn, Chairman of the Scientific Program, in charge of Sections and Sessions, demonstrated that he had given considerable thought to his committee work and after outlining the work, he called upon the specific chairmen of the various sections and sessions, who then participated in a very animated discussion.

Mr. Dwight Anderson reported that the demand for booths already exceeded the available space.

The Executive Secretary of Erie County, Mr. Harold P. Jarvis, expressed his willingness to help us in the matter of attendance at various meetings.

Dr. Harold R. F. Brown, Chairman on Arrangements, promised us every courtesy possible.

Those present representing the Sections and Sessions were Dr. Milton C. Peterson, Dr. Rose M. Lenahan, Dr. Stockton Kimball, Dr. Russell C. Kimball, Dr. Frederick W. Williams, Dr. Albert B. Siewers, Dr. Harold H. Joy, Dr. Ellis Kellert, Dr. Carl H. Laws, Dr. Joseph P. Garen, Dr. Frank E. Coughlin, Dr. Stanley E. Alderson, Dr. George E. Slotkin, Dr. Walter S. McClellan, Dr. T. Wood Clarke. There were also present by invitation, Dr. Carlton E. Wertz, Mr. Gordon M. Marshall, and Mr. Charles L. Baldwin.

The various chairmen of the subcommittees had prepared what promised to be a very unusual convention program but in January the authorities willed it otherwise and at the Council meeting on January 11 it was voted that it would be in the interests of all to declare the Convention off and to so report it in the newspapers, and on March 7 the Council, at the request of the Committee on Conventions, Office of Defense Transportation, voted to postpone indefinitely the meeting of the House of Delegates.

It is always a pleasure to have an associate, one who rebounds with something new and valuable. Mr. Dwight Anderson and a coworker in the Public Relations Bureau soon brought forth the idea of a "Convention by Mail." When the far-reaching and inclusive benefits of this plan were explained, we were all delighted and felt that it would set a precedent to be continued in all future conventions.

The Council on February 8 approved of the plan as presented by Mr. Anderson upon request.

Nursing.—The Council Committee on Nursing, consisting of Dr. Norman Moore, *Chairman*, Dr. Peter Irving (deceased), and Dr. Clayton W. Greene submits the following report.

Nursing education and the practice of nursing, both private and institutional, have occupied the attention of the medical profession this year more than previously. The climax recently reached in nurse recruiting has involved physicians in the controversy. The recruiting groups have charged physicians with casualness and indifference and thereby forced from them the admission that the public is largely responsible for the demand for luxury nursing, condemned as unpatriotic at the present time. Physicians, also, have called attention to the changes in quotas for nurses by the armed services, the color discrimination, physical defect standards, academic qualifications, the disqualification of male and married female nurses, and inefficient recruiting methods.

Your committee has studied this debate with considerable interest since problems relating both to medicine and nursing have been raised. One of these is the academic preparation of the nurse. The need for increased numbers of nurses during the war to meet military needs has raised anew the problem—the length of time of training and curricula.

It is felt that, on the whole, the standards of

nursing education have been influenced for the better by the Cadet program. The length of training under this program [illegible] in order that the student [illegible] her own hospital or another for six months' practical work before receiving her diploma. There has been considerable discussion, and some favorable comment, by members of the medical profession of the question of further [illegible] training course. [illegible] tion differs with [illegible]

fessional individual, the standards of her education must be protected. The Committee is of the opinion that the training of young women with lesser qualifications, who belong to the so-called nonprofessional group of nurses, over a shorter period is not without merit.

The question presenting itself in New York State at the moment, in light of Army recruiting policy, is whether professional nursing should continue to be given in the small, endowed, and private nonacademic hospitals where facilities for the basic sciences are inadequate and where there is often a tendency to place emphasis on the student nurse's value to the hospital rather than on fulfilling the requirements of her curriculum. Curtailment of this group of training schools in this State would not necessarily lead to a decrease in the number of student nurses enrolled, for it has been demonstrated that regional training centers combining adequate staff and facilities can prepare a large [illegible] that the small endowed and private nonacademic hospitals now maintaining nurses' training schools might develop shorter courses for practical nurses who could, under supervision, carry on much of the routine general nursing in hospitals. It is recognized [illegible] would have a [illegible] ional status. [illegible] f the public's interest in the type of nursing personnel that continues to serve them. Public interest is believed to be more economic than educational. It appears logical that an effort will be made by the public, the nursing group, or both, to bring economic relief to the former and security to the latter through extension of nursing insurance.

Office Administration and Policies.—This special Committee of the Society, consisting of Dr. George W. Kosmak, *Chairman*, Dr. W. P. Anderton, Dr. Laurance D. Redway, Dr. Kirby Dwight, and Mr. Dwight Anderson, presents the following report.

REPORT

[illegible] your [illegible] and [illegible] with the routine management of the Central Office These sessions dealt mainly with the following principal items, in addition to many minor matters:

1. [illegible] plans for a pension [illegible] Society's employees.
[illegible] surance companies [illegible] the Chase National [illegible] Company. These [illegible] it to date no action taken. In view of the complexity of the situation [illegible] Council referred [illegible] which has apsisting of Dr. Brennan and Dr. Kosmak, with Dr. Ross as Chairman, to make a further study of the plans submitted. In accordance with an opinion previously rendered by the Society's Counsel, any retirement plan would require approval by the House of Delegates before it [illegible] to be decided up[illegible] tant members of [illegible] ecessitated by the death of Dr. Irving. The latter involved mutual consultation with the Publication Committee and the carrying out of new appointments proposed by the Reorganization Committee, to take care of this emergency. These changes were communicated to the Council and approved by them.

3. Rearrangement of the present office space to provide quarters for the newly created Insurance Bureau presided over by Mr. George P. Farrell and more suitable arrangements for the editorial offices were made. With the expanding activities of the Society's business, thought must be given to secur- [illegible] This [illegible] your Committee have required a great deal of time and attention by [illegible] results that [illegible] portant facts [illegible] As it is depe [illegible] of Delegates for its continuance, it is hoped that its accomplishments will have made a favorable impression upon this body for its renewed appointment.

The Special Committee on Office Administration and Policies recommends that the House of Delegates continue this Special Committee, working under supervision of and reporting to the Council, and that the House give the following directive as to continuance of its personnel:

F
M [illegible]
Literary Editor, the Treasurer, and one member of the Board of Trustees, to be appointed by the President of the Society, after consultation with the Chairman of the Board of Trustees."

Reorganization Committee.—By action of the Council of the Medical Society of the State of New York at its meeting on October 12, 1944, a Reorganization Committee was appointed by President Herbert H. Bauckus.

The Reorganization Committee has the following membership:

O. W. H. Mitchell, M.D., *Chairman*....Syracuse
Thomas M. Brennan, M.D.....Brooklyn
Thomas A. McC[illegible]
N [illegible]
Fl [illegible]

Five meetings of the Committee have been held: October 27, November 9, and December 7, 1944, and January 9, and March 6, 1945. At the first meeting it was decided to request the Council and President Bauckus to increase the membership of the Committee to seven members and to request that Dr. George W. Kosmak, because of his familiarity with office management of the Society, and Dr. Kirby Dwight, the Treasurer, be the additional

members. This report was submitted to the Council and approved at its meeting on November 9, 1944.

At the second meeting of the Reorganization Committee, which interprets its function as one of an emergency committee, it was decided to take the following actions:

1. The Chairman of the Committee to communicate with all members of the Council, except Dr. Irving, to request a vote on the following proposal:

"I { do / do not } approve of a sick leave for our Secretary, Dr. Peter Irving, not to exceed three months, with full salary compensation during the time he is absent from his duties."

The result was unanimous in favor of the proposal, and Dr. Bauckus was notified of the decision by Western Union Day Letter.

Dr. Bauckus talked with Mrs. Irving, informing her of the action of the Council and that full compensation would be allowed for the months of December, 1944, and January and February, 1945.

2. It was decided to request Dr. Walter P. Anderton to accept the position of Acting Secretary on part-time basis.

The Committee realized that it didn't have the authority to make such an appointment nor to prepare a contract for such a position. It did believe, however, that in the emergency such action should be taken and that approval would be requested at the meeting of the Council on Thursday, December 14, 1944, with the recommendation that the Board of Trustees provide for the salary of Dr. Anderton.

Dr. Anderton was informed of the action of the Reorganization Committee and agreed to accept the position, effective December 1, 1944. It was therefore necessary that the action of the Council and the Board of Trustees be retroactive to December 1, 1944. At the meeting of the Council on January 11, 1944, due to the death of Dr. Irving the Reorganization Committee made the following recommendation: "The appointment of Dr. W. P. Anderton as acting secretary on a part-time basis beginning February 1, 1945." On motion, the appointment of Dr. W. P. Anderton, as secretary, serving part time, was approved.

There had been much discussion about the management of the affairs of the New York office of the Medical Society of the State of New York: Because of the great increase in activities, it seemed advisable to the Reorganization Committee that the Secretary should not be burdened with the routine office management which is unrelated, or very indirectly so, to the duties of Secretary. The Committee had in mind such activities as those which generally go with the secretarial and clerical services of a central office and which deal with the ordinary routine management of affairs. Such activities and details do not, of course, include those of policy making, final decisions on finances, or matters which, by the Constitution and Bylaws of the Medical Society of the State of New York, are vested in the House of Delegates, Council, Board of Trustees, and certain officers.

The question had arisen concerning the position designated "General Manager" and it is generally agreed that a better designation might well be "Executive Secretary." According to the bylaws, Chapter VIII, there shall be an officer known as a general manager and requirements are set forth for this position. It is required that he must be a physician and, to quote the Bylaws, Chapter VIII, Part B, "He shall have general management of the executive details of the Society's business, subject to the Council; he shall be the coordinator of all activities of the Society; he shall act as Secretary of the House of Delegates, of the Council, of the Board of Trustees. He shall be eligible for election as Secretary of this Society."

It is the opinion of the Reorganization Committee that the duties of the Secretary could be much better performed without burdening him with the duties of general management. This Committee, therefore, recommends that an office manager, to be designated "executive secretary" be employed, whose duties will be concerned, in the main, with office management and the usual business details of such a position. It isn't necessary for the "executive secretary" to be a physician, as has been demonstrated in other medical organizations. Such an executive officer cannot, of course, function as a physician and would be under the immediate supervision of the Secretary, Assistant Secretary, and other officers of the Society. It would not seem wise, at the present time, to attempt precise definition of duties, as experience in the next few months will demonstrate the wisdom of this change in administration.

All of these proposed changes must, of course, be temporary, as final action must be taken at the next Annual Meeting of the House of Delegates or by the Council if the Annual Meeting is not held.

Another matter which has concerned the Reorganization Committee is the NEW YORK STATE JOURNAL OF MEDICINE. The Secretary and General Manager had been active in the general supervision of the JOURNAL. This service, added to his already heavy burden of duties, must now be provided for in the rearrangement. Your Committee believes that the NEW YORK STATE JOURNAL OF MEDICINE has a great future and that the Managing Editor should be relieved of the many duties required of a secretary and general manager. Such a position need not be full time but will require considerable attention by someone especially interested in the management and scientific content. We therefore requested Dr. George W. Kosmak, a member of the Board of Trustees and editor of the *American Journal of Obstetrics and Gynecology* and Associate Managing Editor of the NEW YORK STATE JOURNAL OF MEDICINE, to assume the duties of Acting Managing Editor of the NEW YORK STATE JOURNAL OF MEDICINE. This is a position of considerable responsibility which will require much time. Dr. Kosmak consented to assume these duties until provision is made for someone else to take charge. Already he has contributed much. Without considering the request of Dr. Kosmak to disregard financial compensation, the Committee recommended that he receive an honorarium in keeping with the responsibilities, time, effort, and contribution which such a position entails. Your Committee did not make a recommendation regarding the amount of the honorarium and preferred to have it decided by the Board of Trustees. At the meeting of the Council of the Medical Society of the State of New York on January 11, 1945, the Reorganization Committee submitted the following recommendation: "That Dr. George W. Kosmak be appointed Managing Editor of the NEW YORK STATE JOURNAL OF MEDICINE." On motion the appointment of Dr.

Kosmak as Managing Editor of the NEW YORK STATE JOURNAL OF MEDICINE was approved.

Recently, Dr. Joseph S. Lawrence, who for so many years was in charge of the Albany office and held the position of Executive Officer, has accepted a position with the American Medical Association in the Washington office. We have been most fortunate in securing for this important office Dr. Robert R. F[illegible]or executive ability and [illegible]ucation are well known [illegible]VIII of the Bylaws, Sec[illegible]"Executive Officer will give his full time and undivided attention to the affairs of the Society, subject to the direction of the Council." It is also stated in the same paragraph that "he shall assist the General Manager." This section needs clarification and should be revised after conferences have been held by the Reorganization Committee, Dr. Hannon, Secretary Anderton, and probably other officers of the Society.

The personnel necessary to carry on the routine business in the New York office is a sizable group. The individual duties and responsibilities are widely different. It is, therefore, not easy to determine what their classifications should be and the financial compensation which they should receive. Several of them have been in the service of the Society for many years; others not so long and some, of course, are relatively new or for temporary service. It seems advisable to allow the classification of office personnel to be made by the Secretary, the Executive Secr[illegible] the JOURNAL, Committ[illegible] and Policies, and the [illegible]

At the meeting of the Council on December 14, 1944, [illegible] Com[illegible] ganization Committee which involve changes in the Bylaws be referred to the Committee on Constitution and Bylaws.

2. That because of the illness of Dr. Irving a new Committee on Constitution and Bylaws should be appointed.

These motions were seconded and approved.

Résumé of Instructions of the 1944 House of Delegates and Actions Thereon of the Council, Board of Trustees, and Officers

Regional Centers for Diagnostic Aid (Section 50.)—The House instructed the President to appoint a special committee or subcommittee to survey the [illegible]

Drs. Ivan N. Peterson, George A. Marsden, Peter J. Di Natale, Dan Mellen, Kenneth F. Bott, Walter S. Thomas, Scott Lord Smith, Stephen R. Monteith, and Andrew A. Eggston are conducting a careful survey and their findings and recommendations will be published later.

Establishment of a Bureau of Medical Expense Insurance (Section 50).—The House adopted the following resolution:

"Your Committee concurs in the recommendation of the Planning Committee for the establishment, as soon as possible, of a Bureau of Medical Care Insurance by the State Medical Society under a full-time director with the neces[illegible]

lishment of this Bureau.

"We further suggest that the Director of this Bureau should be thoroughly conversant with insurance practices, and be a physician if possible."

The Council instructed the Committee on Public Relations and Economics and the Subcommittee on Medical Expense Insurance to submit a plan and recommend a director for this new Bureau. Mr. George P. Farrell, Enrollment Supervisor of the Western New York Hospital Service Corporation, of Buffalo, was selected, signed a contract, and in February opened his office in the State Society offices.

Journal Department on Medical Expense Insurance (Section 36).—The House voted as follows:

"[illegible] further recommends that for a period of one year free advertising space, as well as reading matter in the text, be given to those organizations approved by the Medical Society of the State of New York. The amount of space allotted shall be left to the discretion of the Council."

These instructions have been followed by the editors and Publication Committee.

Directory.—The Publication Committee has not attempted issuing a new medical directory because the shortage of paper and difficulty in engaging proper personnel has precluded such an endeavor.

Director of Workmen's Compensation Bureau (Section 73).—The House adopted the following recommendation:

"At the present time, however, your Reference Committee [illegible] situation is clarified [illegible] law, your bureau, as now, should have a part-time director, and that the [illegible] some future [illegible] of the Council and Board of Trustees. If a full-time director is appointed, he should devote himself solely to the duties of that office in the State Society."

The Council has appointed Dr. David J. Kaliski to be Director of the Workmen's Compensation Bur-

eau, to devote his full time to this Bureau and in no other way to represent the Society.

Malpractice Defense and Insurance (Section 77)—The House adopted the following recommendation:

"Your Reference Committee recommends that the Council Committee on Malpractice Defense and Insurance proceed to make a survey of the entire malpractice insurance situation and bring in recommendations to the Council."

The Council referred this survey to the Committee on Malpractice Defense and Insurance. This committee has investigated the matters exhaustively and intends to report to the Council, and its findings will be published as soon as possible.

Workmen's Compensation Fee Schedule (Section 79).—The House resolved:

"WHEREAS, the Medical Fee Schedule of the Workmen's Compensation Law was established by the Industrial Commissioner of the State of New York during normal times; and

"WHEREAS, on and after May 15, 1942, the hospitals of the State of New York were granted an increase in fees by the Industrial Commissioner following a conference and agreement by the representatives of the compensation insurance carriers and the Hospital Association of New York State; and

"WHEREAS, the cost of living has increased within the past few years; therefore be it

"*Resolved*, that the Medical Society of the State of New York take such appropriate action as is necessary with the Industrial Commissioner of the State of New York and the representatives of the compensation insurance carriers that an increase be granted to the medical profession for fees in the present Medical Fee Schedule."

This matter has been considered by the Workmen's Compensation Committee and the Labor Department of the State of New York, and an upward revision of fees for treatment and examinations of Workmen's Compensation cases is in process.

School Health Program (Section 37).—The House adopted a Reference Committee report in part as follows:

"We refer to the matter of instruction of health teachers. At the present time the percentage of teachers qualified to give health instruction is very low. The courses in public-health instructions, available in the normal school in State Teachers Colleges, are not utilized to their full advantage. If we are to have good health instruction in the schools, we must have a sufficient number of well-qualified teachers.

"We, therefore, recommend to the Subcommittee that they place special emphasis on this phase of the subject during the coming year."

This was referred to the Committee on Public Health and Education and considered at meetings in Syracuse on May 23, 1944, and in New York City on June 22, 1944. A syllabus was prepared and special instruction was given high-school teachers in regard to teaching of health matters, under the State Education Department.

Medical Practice Act (Section 82).—A letter was sent to Governor Dewey as result of the following resolution of the House:

"*Resolved*, by the House of Delegates of the Medical Society of the State of New York that it be recommended to the Governor and the Legislature of the State of New York that the Medical Practice Act be more rigidly enforced in the interest of the health and welfare of the citizens of this State."

Publicity (Section 84).—The budget for the second half of 1944 carried an increase in allotment for publicity as advocated in a resolution committed to the Council by the House.

Workmen's Compensation, Deductions from Bills (Section 88).—The House adopted the following resolution:

"*Resolved*, that the Medical Society of the State of New York be requested to arrange with the Industrial Commissioner of the State of New York that no deduction be made in the payment of bills for Workmen's Compensation cases."

The Workmen's Compensation Committee has taken appropriate action, and the matter has been advocated before the Industrial Commission.

Plan for Medical Care (Section 89).—As a result of a resolution in regard to planning "to provide adequate medical care to that part of our population just above the line of indigency," the Dutchess County plan was referred by the Council to the Planning Committee for Medical Policies, which studied the matter.

(For lack of space, it was not possible to publish all of the Annual Reports in the current issue. The remainder will be included in that of April 15.)

Postgraduate Medical Education

Programs arranged by the Council Committee on Public Health and Education of the Medical Society [illegible] this Section of the JOURNAL. *The members of [illegible], Chairman (428 Greenwood Place, Syracuse, M.D.*

Nassau County Lecture on Intractable Ulcer

DR. J. WILLIAM HINTON, associate clinical professor of surgery, College of Physicians and Surgeons, Columbia University, will give postgraduate instruction to the Nassau County Medical Society on Tuesday, April 24 at 9:00 P.M. at Mercy [illegible]. The title of his lecture [illegible] with Emphasis on the [illegible].

The lecture has been arranged by the Council Committee on public health and education.

Pneumonia and Cardiovascular Emergencies

THE St. Lawrence County Medical Society will [illegible] lege, delivered a talk to the society on "The Treatment of Pneumonia," at the A. Barton Hepburn Hospital, Ogdensburg.

These two le[illegible]e Council Committee on [illegible]on. The lecture on the [illegible] was presented as a joint endeavor between the Medical Society of the State of New York and the New York State Department of Health.

Monthly Lectures in Greene County

TWO postgraduate lectures will be given to the Greene County Medical Society and the staff of the Memorial Hospital of Greene County in April and May.

On April 26 Dr. Ralph G. Stillman, assistant professor of medicine, [illegible] lege, will speak on [illegible] Tests and Method[illegible] and on May 31 D[illegible] clinical professor o[illegible] and Surgeons, New [illegible] 'Surgical Treatmer[illegible]

These lectures will take place Thursday evenings at 9:00 P.M. at the Memorial Hospital of Greene County, Catskill.

The March lecture was given by Dr. Harry Bakwin, associate professor of pediatrics, New York University, who spoke on "The Diagnosis of Meningitis."

This instruction is provided by the Medical Society of the State of New York with the exception of the lecture on meningitis, which was presented jointly by the State Department of Health and the State Medical Society.

Treatment of Fractures

THE Otsego County Medical Society heard a lecture on "The Treatment of Fractures by the General Practitioner" given by Dr. Harrison L. McLaughlin, instructor in surgery, College of Physicians and Surgeons, Columbia University, New York City.

It was given on March 14 at the Tunnicliff Inn, Cooperstown.

Cayuga County Lecture

DR. FREDERICK N. MARTY, instructor in clinical medicine, Syracuse University College of Medicine, gave postgraduate instruction to the Cayuga County Medical Society on March 15 at the Auburn City Hospital, Auburn. His subject was "Penicillin Therapy."

Traumatic Surgery

A SERIES of lectures on traumatic surgery has been arranged for the Medical Society of the County of Sullivan by the Council Committee on Public Health and Education, to be given on Wednesdays at 8:00 P.M.

On March 14 the first meeting was held at the Lenape Hotel, Liberty. The first lecture was "Traumatic Surgery with Emphasis on Treatment of Wounds and Shock." Dr. Henry H. Ritter, professor of clinical surgery at New York Post-Graduate Medical School, Columbia University, then spoke on "Fractures in General—the Treatment of Common Fractures." On March 21, at Monticello Hos[illegible] tor [illegible] ate [illegible] Tre[illegible]

On April 4 the lecture was held at the Woodbourne Institute for Mental Delinquents, Woodbourne. Dr. David Goldblatt, assistant clinical professor of surgery at New York Post-Graduate Medical School, spoke on "The Treatment of Burns and Hand Infections." On April 11, at the Lenape Hotel, Dr. Ernest W. Lampe, instructor in trau-

matic surgery at New York Post-Graduate Medical School, will speak on "Bursitis, Sprains, Strains." The meeting on April 18, at Monticello Hospital, will consist of a lecture entitled "The Treatment of Fractures of the Femur and Humerus," by Dr. Walter D. Ludlum, Jr., associate in traumatic surgery, New York Post-Graduate Medical School. On April 25, at the home of Dr. Harry Golembe, 111 Champlin Avenue, Liberty, Dr. David Lyall, assistant surgeon at New York Post-Graduate Medical School and Hospital, will speak on "Wounds, Nerve, and Tendon Injuries."

The May meeting will be at the Lenape Hotel, Liberty. A lecture, "The Care of Head Injuries," will be delivered by Dr. George A. Glass, of New York Post-Graduate Medical School.

This instruction is presented as a cooperative endeavor between the Medical Society of the State of New York and the New York State Department of Health.

Psychiatry

POSTGRADUATE instruction in psychiatry has been arranged by the Council Committee on Public Health and Education for the Saranac Lake Medical Society.

A lecture will be given April 11 at 8:00 P.M. in the John Black Room of the Saranac Laboratory, Saranac Lake. Dr. Foster Kennedy, professor of clinical medicine at Cornell University Medical College, New York City, will speak on "The Neuroses Related to the Manic-Depressive Constitution."

NATIONAL FOUNDATION RELEASES ANNUAL REPORT

The encouraging news that "some of the mystery of infantile paralysis is being dispelled" is contained in the annual report of the National Foundation for Infantile Paralysis, made public in February by Basil O'Connor, president.

Listing grants and appropriations totaling $1,828,859 authorized by the National Foundation between September 30, 1943, and May 31, 1944, for research, education, and the training of physical therapists, the present report covers an eight-month period.

The report also contains the information that a special fund of $2,000,000 for epidemic aid and other emergencies has been established by the trustees, as of May 31, 1944, and that last summer's epidemic —the second worst outbreak of poliomyelitis in the history of the United States—drew upon the newly created fund to the extent of $739,860. This money was used to supplement chapter funds in local communities hard hit by the 1944 outbreak.

During the eight months covered by the fiscal report, the National Headquarters received $5,191,148 as its share of the 1944 March of Dimes appeal, an additional $5,293,232 remaining with the National Foundation's county chapters. Receipts from other sources, including $240,000 donated by the producer of the motion picture "Forever and a Day," increased the total income of the National Foundation for the fiscal period to $5,452,593.

Of the 1943 outbreak, the report has this to say: "Not only was help sent to each epidemic area, but as far as facilities permitted the epidemics became the subject of special study. Grantees of the National Foundation concerned with epidemiology were kept posted on the spread of the epidemic. As information was received from the states it was relayed to these research workers. They then were able to go into the field with their trained staffs and to carry out their investigations early in the outbreak.

"Particularly were extensive investigations conducted in California, Texas, Illinois, and Connecticut. The pattern of spread of cases was investigated; thousands of specimens were collected in accordance with a carefully prearranged plan. Bodily secretions and blood specimens were secured from patients and their contacts and material was collected from the environment in which these persons lived.

"Wild and domestic animals and birds were studied as well as food, water, and sewage. The examination of all this material calls for months of study. The laboratory procedures involved are difficult and expensive.

"Much has been learned from this epidemic. The method of spread of the disease is better understood. Some of the mystery of infantile paralysis is being dispelled. But not enough has yet been learned to set into operation practical control measures. More epidemics need be studied; laboratory methods must be greatly improved before the final answer can be given."

The report recounts also the findings of virus research and aftereffects research which have been conducted in university and hospital laboratories under National Foundation grants. It draws a picture of a broad research and of the development and study of physical therapy as well in the specific field of infantile paralysis.

"In seeking improved methods of treatment it has been necessary to study other diseases," the report states. "The effects of drugs have been studied, not so much by observing their action on infantile paralysis in man, but rather in testing them in laboratory animals infected with similar disease-producing viruses.

"Grants have been made to include studies of other viruses and virus diseases so that the facts learned would both increase the knowledge and develop better methods of study and treatment of infantile paralysis."

The University of the State of New York

The State Education Department

Board of Medical Examiners

This is to notify you that the Board of Regents at a meeting held November 17, 1944,

VOTED, that such determination of the Medical Committee on Grievances in the matter of the application for the revocation of the medical license *heretofore granted to* Louis Herschman, Brooklyn, be accepted and sustained; that, in compliance with the recommendation of said committee, medical license No. 15870, issued under date of October 7, 1920, to said Louis Herschman, permitting him to practice medicine in the State of New York, be revoked, annulled,

Grievances and to carry out the terms of this vote.

Dr. Herschman was registered for the year 1944 from 232 Rogers Avenue, Brooklyn, New York. The order was served on Dr. Herschman on December 5, 1944, and is in full force and effect.

* * *

On October [illegible] of Regents at [illegible] voted that th[illegible] Henry Lee Bl[illegible] and canceled, and that his registration or registrations as a physician be ordered annulled and canceled of record.

Doctor Blank, hav[illegible] Governor of the State [illegible] the Commissioner of [illegible] and has, in accordance with the Commissioner's order, been permitted to have his license restored. The order of the Commissioner was served on Dr. Blank December 29, 1944.

* * *

This is to notify you that the Board of Regents at a meeting held January 19, 1945,

VOTED, T[illegible] division 1, [illegible] medical lic[illegible] July 1, 192[illegible] permitting [illegible] of New Yo[illegible] and that [illegible] physician, [illegible] annulled and canceled of record; and that the C[illegible] wered and [illegible] the Board [illegible] ry out the terms of this vote.

Dr. Dukoff was registered for the year 1945–46 from 38 Fort Washington Avenue, New York City. The order of cancellation was served on Dr. Dukoff on January 29, 1945.

* * *

This letter is to be considered a follow-up of earlier correspondence. The license of Dr. Hyman S. Frank is in suspension for a period of one year beginning December 7, 1944, and ending December 7, 1945. *I believe your record at the present time* indicates that the suspension of his license is scheduled to expire December 31, 1945, which is not quite in accordance with the facts in the case.

* * *

On January 12, 1944, we notified you that the [illegible] the order and until reinstated by the Commissioner of Education.

Dr. Lichtenstein has applied to the Commissioner of Education for reinstatement and has, in accordance with the Commissioner's order, been reinstated as of February 13, 1945.

MEDICAL AND SURGICAL RELIEF COMMITTEE SENDS SUPPLIES TO EUROPE

[illegible] 27 Mrs. Huttleston [illegible] f the Medical and [illegible] nounced that the [illegible] he tide of [illegible] ving medi- [illegible] territories [illegible], Canada, [illegible] amount of [illegible] 037.08. [illegible] ed by all [illegible] aby foods, [illegible] General operating and obstetric instruments are also in great demand. The Medical and Surgical Relief Committee is often able to supply instruments [illegible] out. Volunteer workers who wish to assist in the [illegible] rugs, or doing office [illegible] headquarters, 420 [illegible] City, Room 328, or [illegible] MUrray Hill 2-5570.

Honor Roll

Medical Society of the State of New York

Member Physicians in the Armed Forces

By County Societies

Supplementary List*

Broome County

Fergus, Andrew (Lt.)
Sobel, Benno (Lt.)

Dutchess County

Bradley, Joseph W.

Kings County

Divine, Walter E. (Lt. Comdr.)
Fierst, Sidney M. (Capt.)

New York County

Carreras Miguel A.
Gross, Ludwik (Capt.)
Liebling, Walter (Lt.)
Rosenbluth, Milton B. (Lt. Comdr.)
Slocum, Milton J.
Young, Dennison (Capt.)

Niagara County

Dodge, Edward F. (Lt. Comdr.)

Queens County

Miller, Jason (P.A. Surgeon (R) USPHS)
Tartaglione, Edward F. (Lt.)
Zoller, Philip A.

Suffolk County

Von Salzen, Charles F.

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* This list is the thirty-first supplement to the Honor Roll published in the December 15, 1942, issue. Other supplements appeared in the January 1, January 15, February 15, March 1, March 15, April 15, June 1, July 1, August 1, September 1, October 15, November 15, December 15, 1943, January 15, February 1, February 15, March 1, May 1, May 15, June 1, July 1, July 15, August 1, September 1, October 1, November 1, December 1, 1944, January 1, February 1, and March 1, 1945, issues.—*Editor*

NEW TYPE MAGNET REMOVES FOREIGN BODIES FROM STOMACH

A new type of magnet, by which magnetizable foreign bodies in the stomach and windpipe can be removed, thus eliminating operations which often are necessary to remove such objects, is described in the *Journal of the American Medical Association* for January 13 by Murdock Equen, M.D., of the Ponce de Leon Eye and Ear Infirmary, Atlanta, Georgia.

The magnet is composed of alnico, an alloy of aluminum, nickel, cobalt, and iron. For the past two years, Dr. Equen says, the new alloy magnet has been available as a small permanent type for use in removing foreign objects from the eye.

The instrument reported for use of the magnet is composed of a tube to which the magnet is attached and which is introduced into the stomach through the mouth and esophagus. At the other end of the tube is a rubber bulb which is used for inflating the stomach. This inflation lifts any collapsed portion of the stomach from the foreign object, such as a pin, allowing the magnet to be passed about freely, and the foreign body is thus unimpeded in being attracted by the magnet.

As Dr. Equen explains, the removal of foreign bodies from the stomach and windpipe by means of the gastroscope and flexible forcepts is a very difficult procedure. The constant shifting of the position of the foreign body, in a space as large as a stomach, makes it very difficult to establish contact between the forceps and the object.

Alnico magnets require a considerably stronger magnetizing force to magnetize them completely than do other types of permanent magnet alloys, the author says. At the same time, alnico has more available external energy or attracting power for a given volume or size than has any other permanent magnet material known at the present time.

Dr. Equen presents in his paper a case report that he says is typical of the entire series of cases of foreign bodies removed by the new magnet. He tells of a girl aged 19 months who had swallowed her mother's hairpin twelve hours previous to the time the baby was brought to him. The new instrument was passed down the esophagus and introduced into the stomach of the child. This was done against a background of a fluoroscopic screen which revealed by means of x-ray the position of the hairpin and also of the magnet. The stomach was then inflated, the pin quickly coming into the range of the magnet to which it was attracted and then withdrawn from the stomach. The entire procedure lasted only eight minutes, he said.

"The new alloy magnet, alnico," Dr. Equen concludes, "is being proved of great value to medicine. For the past two years it has been available as a small permanent-type eye magnet. Only a minority of foreign bodies of the food and air passages are magnetizable, but among those which are the use of this instrument will render unnecessary many abdominal operations and decrease bronchial instrumentation."

Medical News

Social Hygiene Award to General Ireland

MAJ. Gen. Merritte W. Ireland, USA, former Surgeon General of the Army, received the William Freeman Snow Award on February 7, in Chicago. The Award, established in 1937 and given annually by the American Social Hygiene Association, is "For Distinguished Service to Humanity."

ard was made by
al of the Armies,
an of the Asso-

n in 1891 as a
culminated in his
General of the Army, a post which he held from 1918 until his retirement in 1931. During his term of service he reorganized the Surgeon General's Office on the strength of experience gained during World War I and laid the basis for the present efficient army medical program through the establishment of the Field Service School at Carlisle Barracks, Pennsylvania, and the development of the Army Medical Center at Washington, D.C. and of Army hospital facilities.

"In the years since his retirement," said General Pershing, "General Ireland has served civilian as well as military health and welfare with unabated zeal and statesmanship."

National V. D. Committee Agrees to Recommend Extension of May Act

THE National Venereal Disease Committee, meeting in Washington recently at the request of Federal Security Administrator Paul V. McNutt, agreed to recommend to Congress the extension of the May Act, which prohibits prostitution around military and naval establishments. The act expires May 15, 1945.

and promiscuity.

Thomas Devine, newly appointed director of the Social Protection Division, Federal Security Agency, said that venereal disease control is no longer a problem to be focused on trouble spots or war-impacted areas, but is a matter of concern for all communities.

The fact that 40 per cent of military venereal disease infections occur during furlough shows that the control problem is not confined to communities adjoining camps or war
ment made by Lt.
rector, Venereal Dis

Devine that,
to eradicate
committees

In view of the advances made in modern thera-
disease as a national public menace within a few years.

Simultaneously, it was agreed, steps must be taken to meet the problem of prostitution and promiscuity.

New Drugs to Combat Malaria Are Tested in Prisons

THE Division of Medical Sciences of the National Research Council reported on March 5 on a series of far-reaching tests in which several hundred prisoners in three of the country's large penal institutions have volunteered to serve as living test-tubes for new potent drugs developed by our chemists against malaria, which afflicts 800,000,000 persons over the world.

To carry out the tests under the strictest possible conditions, on a scale never tried before, the prisoners first allow themselves to be bitten by mosquitoes carrying the parasites of malaria.

Then they expose themselves to further and even greater danger by taking varying doses of the new drugs to determine whether the chemicals can safely be given to our fighting men exposed to malaria and how large a dose can be tolerated by the human system.

Pointing out that no promise of reward of any kind has been given to the prisoners, the report stated:

"The men accept full responsibility for any ill effects, aware of the risk and discomfort to themselves and knowing, too, that despite every care, there is a real hazard involved. These one-time enemies to society appreciate to the fullest extent just how completely this is everybody's war.

"No fatalities are expected in the course of the tests, but the element of risk is always present. Instead of being deterred by this, many of the volunteers actually invite danger, in order to share in some measure what their friends and relatives are experiencing on the various battlefronts.

"Upon learning that, through their cooperation, thousands of GI's might be spared the ravages of the tropical malady, the prisoners respond immediately and enthusiastically.

"Honor-bound not
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formatory, Rahway, New Jersey.

Since March, 1944, it was revealed, more than a

hundred prisoner-volunteers at Atlanta have been exposed to relapsing vivax malaria (the most frequent type) in final tests of potential antimalarial drugs, "prior to their use in the armed forces."

More than one hundred other volunteers in the two other prisons have taken large doses of new drugs for long periods of time "in order to prove that the drugs may safely be used in the prevention and treatment of malaria by members of the armed forces and by civilian populations."

Nearly eight hundred prisoners have so far volunteered.

Early in 1941, it was revealed, the medical scientists of the country envisaged a concerted effort "to find an easily administered drug which would eradicate malaria." To make this attempt, an integrated and comprehensive program of research was organized by the National Research Council and supported by the Federal government through the Committee on Medical Research of the Office of Scientific Research and Development.

Later the entire program was integrated under the Board for the Coordination of Malarial Studies, a joint body composed of representatives from the Army, Navy, Public Health Service, Office of Scientific Research and Development, and the National Research Council.

Acting under the board are four subcommittees—the Panel on Synthesis, the Panel on Biochemistry, the Panel on Pharmacology, and the Panel on Clinical Testing.

The volunteers, in the course of numerous tests, submit to the withdrawal of as many as 50 cc. of blood daily for over a week and then, at periodic intervals, for a month or more.

When the men become ill with malaria, they receive "the best possible care" in a special unit of the well-equipped prison hospital. As soon as they are well, they return to their jobs in the prison shops.

Periodic observations are continued for months to record every instance in which the disease relapses. For this is the test of a drug which purports to knock out relapsing vivax malaria for good and all.

The experiments have four major objectives: to demonstrate whether the drug is tolerable to men living under ordinary conditions of activity; to determine whether any latent chronic toxic manifestations result from the prolonged administration of the drug; whether, when given daily or weekly, the drug tends to accumulate in the system; and to determine the most satisfactory dosage schedule.

The nature of the drug or drugs, as well as the results, is still a closely guarded secret, but the stage of large-scale human testing is regarded in itself as indicating that the long-sought goal is close to realization.

Cancer Society Seeks Fund to Start Drive for Conquest of Cancer

A COMPREHENSIVE program of research on cancer, organized on a national scale and designed to attack the cancer problem with all weapons known to science by the best brains in the field working through a central coordinating body, was announced on March 5 by the American Cancer Society. This is the first time that any such project to combat cancer has ever been undertaken anywhere, and leaders in the field hold out "high hopes" that the program will contribute greatly to the increase of our knowledge about this scourge and to the development of improved methods for prevention, early diagnosis and treatment.

Until now cancer research has been carried out largely in a few institutions with relatively small funds or by individual investigators working under the handicap of short-term grants-in-aid, which often were not renewed. Progress in the work, one of the most difficult of all problems facing science, was necessarily slow, and lack of coordination and central planning added to its difficulties.

To obtain funds for the new comprehensive program and to insure its continuity over a long term of years, the American Cancer Society will launch a nationwide campaign in April to raise an initial fund of $5,000,000, with similar campaigns to be conducted on an annual basis. Leaders agree that the cancer problem is one touching every individual in the nation, as it takes a toll of 160,000 American lives every year. From the point of view of public health it is a much more serious problem, for example, than infantile paralysis, on which much larger amounts are spent annually than on cancer research.

The national executive council of the American Cancer Society is headed by Eric A. Johnston, president of the United States Chamber of Commerce, and comprises scientists, labor leaders, educators, business, and newspaper men.

The research program will be in charge of a scientific committee of five leaders in the cancer field. It includes Prof. Charles B. Huggins, of the University of Chicago, whose new treatment for cancer of the prostate already has saved many lives; Dr. C. C. Little, one of the country's leading geneticists, managing director of the American Cancer Society; Dr. James B. Murphy, head of the cancer division of the Rockefeller Institute for Medical Research; Dr. C. P. Rhoads, director of Memorial Hospital, New York City, now a colonel in the Chemical Warfare Service, and Dr. Florence R. Sabin, of the Rockefeller Institute, one of the world's most noted scientists.

Rear Adm. Charles S. Stephenson, who recently retired from the Navy Medical Corps, widely known for his outstanding service as an organizer and administrator in the field of preventive medicine, has been appointed secretary of the research division and will serve as its executive officer. He now is engaged, Dr. Little announced, in making a survey of cancer research activities and facilities throughout the country. This survey, Dr. Little added, will be kept up to date by frequent visits and contacts.

County News

Albany County

Dr. Elmer C. Bartels, of the medical department of the Lahey Clinic, Boston, spoke on "The Use of Thiouracil in the Preoperative Preparation of Severe Hyperthyroidism" at a meeting of the county society on February 28 in the auditorium of Albany College of Pharmacy.

A graduate of the University of Illinois College of Medicine, Dr. Bartels was on the staff of the Mayo

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[Continued on page 802]

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hundred prisoner-volunteers at Atlanta have been exposed to relapsing vivax malaria (the most frequent type) in final tests of potential antimalarial drugs, "prior to their use in the armed forces."

More than one hundred other volunteers in the two other prisons have taken large doses of new drugs for long periods of time "in order to prove that the drugs may safely be used in the prevention and treatment of malaria by members of the armed forces and by civilian populations."

Nearly eight hundred prisoners have so far volunteered.

Early in 1941, it was revealed, the medical scientists of the country envisaged a concerted effort "to find an easily administered drug which would eradicate malaria." To make this attempt, an integrated and comprehensive program of research was organized by the National Research Council and supported by the Federal government through the Committee on Medical Research of the Office of Scientific Research and Development.

Later the entire program was integrated under the Board for the Coordination of Malarial Studies, a joint body composed of representatives from the Army, Navy, Public Health Service, Office of Scientific Research and Development, and the National Research Council.

Acting under the board are four subcommittees—the Panel on Synthesis, the Panel on Biochemistry, the Panel on Pharmacology, and the Panel on Clinical Testing.

The volunteers, in the course of numerous tests, submit to the withdrawal of as many as 50 cc. of blood daily for over a week and then, at periodic intervals, for a month or more.

When the men become ill with malaria, they receive "the best possible care" in a special unit of the well-equipped prison hospital. As soon as they are well, they return to their jobs in the prison shops.

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[Continued on page 802]

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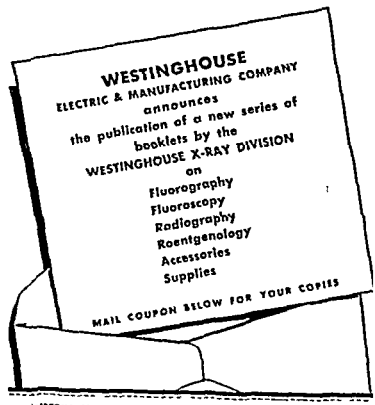
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[Continued from page 802]

35,000 teachers, and that a "pilot" group of about 1,000 teachers and school employees in the Bay Ridge section of Brooklyn began taking examinations on March 12.

Oneida County

The February meeting of the Utica Academy of Medicine was held on February 15 in the Utica at 8:00 P.M.

Dr. John R. Murlin, professor of physiology, University of Rochester Medical School, spoke on "Biological Value of Protein Foods." Dr. Fred G. Jones, newly elected president, presided.*

Orange County

Dr. Homer L. Stephens, of Walden, was elected president of Newburgh Bay Medical Society at the annual dinner meeting in the Palatine Hotel.

Dr. Stephens succeeds Dr. E. C. Thompson, under whose leadership the organization has enjoyed an unusually successful year.

Other officers elected to serve with Dr. Stephens are: vice president, Dr. Arnold Messing, of Newburgh; secretary, Dr. Meyer Zodikoff; treasurer, Dr. C. W. Beattie, of Wallkill; auditor, Dr. Arnold Banks; librarian, Dr. Daniel I. O'Leary; trustees, Dr. C. W. Layne, Dr. Harold Levy, both of Newburgh, and Dr. H. M. Gasparian, of Cornwall-on-Hudson.*

Rensselaer County

"The Treatment of War Wounds", a movie, was shown at the regular monthly meeting of the county society, held at the Troy Health Center. The movie made particular reference to plastic repairs of almost hopeless crushing wounds and burns, the technic being shown in great detail. This picture was enthusiastically received by the doctors present and was followed by discussion.

Walter McKenna, Col., (MC), USA, recently discharged, was present at the meeting and was welcomed back into the society by Dr. John F. Connor, president.

Richmond County

Members of the county society met on February 13 in the Health Center, St. George.

The meeting was held in conjunction with an exhibit of the Health Department in relation to meningitis. A representative of the department spoke.

Guest speakers were William E. P. Collins, superintendent of the Staten Island Hospital, who spoke on medical problems and conditions of the Island's hospital, and Mrs. John Avent, who spoke in behalf of the American Red Cross.

Schenectady County

The regular monthly meeting of the county society was held on March 6 at 8:30 P.M. at the Briggs Memorial Library, Schenectady. Dr. Joseph L. Schwind, assistant professor of anatomy at Albany Medical College, spoke on "Cytology and Diagnosis of Diseases of the Blood."

* * *

After completing nearly two years of study and special training in gynecology and obstetrics in Boston, Dr. Louis P. Tischler has returned to Schenectady and has reopened his offices.

Dr. Tischler is a graduate of Albany Medical College. He served his internship of one year at Ellis Hospital and continued there as resident in surgery for five months. While engaged in the general practice of medicine in Schenectady for eight years, he also assisted at the prenatal clinic of the Union Street Health center. For over a year Dr. Tischler also assisted at the gynecologic clinic at Ellis Hospital.

In addition, he was assistant to gynecologic surgeons for three years.

In 1942 Dr. Tischler continued his postgraduate work in gynecology and surgery at Mount Sinai Hospital in New York city. Thereafter he discontinued his general practice to devote nearly two years to specialized training in Boston. He received appointments to the resident staffs in several teaching hospitals there which are associated with Harvard Medical School. During that period he served as house officer and assistant resident in gynecology and obstetrics at Boston City Hospital, as assistant resident in gynecology at the Free Hospital for Women, and as resident in gynecologic and obstetrical pathology at the Boston Lying-in Hospital.

Dr. Tischler is a member of the county society, the American Medical Association and a diplomate of the National Board of Medical Examiners.*

Westchester County

Community mental hygiene clinics to provide consultation and treatment for returning servicemen and -women and their families, and for children whose behavior problems may develop into serious personality difficulties will be organized by a Mental Hygiene Association of Westchester County, established in Bronxville on February 13.

About seventy-five persons attended the organization meeting in the Christ Church undercroft, despite the storm.

Miss Constance Warren, president of Sarah Lawrence College, was elected president of the association, an outgrowth of a county committee for mental hygiene formed in December.

Chosen as vice-presidents were Dr. Laurance D. Redway, of Ossining, president of the Medical Society of Westchester; Dr. Lawson G. Lowrie, Bronxville psychiatrist; Mrs. Philip Klein, of Scarsdale, chairman of the committee on plan for establishment of the association; and Miss Julia V. Grandin, of Yonkers, executive secretary of the Family Service Society.

Clarence K. Whitehill and Mrs. Liston Noble, both of Scarsdale, were named treasurer and secretary, respectively.*

Yates County

Governor Dewey sent to the State Senate in January for confirmation the nomination of Dr. John A. Hatch, of Penn Yan, as a member of the Board of Visitors at the Willard State Hospital, to succeed Henry R. Brown, of Penn Yan, whose term expired December 31, 1944. Dr. Hatch's term is for seven years.

Dr. Hatch was graduated in 1919 from the University of Buffalo Medical School.

Dr. Hatch is a member of the staff of the Soldiers & Sailors Memorial Hospital of Penn Yan and is a member of the county society, the New York State Medical Society, and the American Medical Association.*

Nutritive Prophylaxis During Pregnancy





Even in normal times, a diet fortified with calcium, phosphorus and vitamin D *is essential* to the expectant (and lactating) mother. But in these days of increased rationing and food shortages, many physicians agree that such nutritive prophylaxis *is vital* Two capsules of Squibb Dicalcium Phosphate Compound with Viosterol, three times daily, supply a total of 7.8 grams of calcium (about one-half the daily requirement)—and an adequate amount of vitamin D to assure its utilization.

Dicalcium Phosphate Compound

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Hospital News

Conference on Convalescent Hospitals

SERVICE Command directors of reconditioning conferred with the commanding officers of convalescent hospitals at Lexington, Virginia, on January 3, 4, and 5, and discussed problems of organizing and operating convalescent hospitals under the broadening reconditioning program. The conference was addressed by Col. Augustus Thorndike, MC director of the Reconditioning Consultants Division, Office of the Surgeon General, who stressed the continuation of the original mission of reconditioning: to refit men either for return to duty or to civilian life.

Among the other officers who attended the conference from the Surgeon General's Office were: Lt. Col. Walter E. Barton, MC, Maj. William S. Briscoe, AUS, Maj. Arthur A. Esslinger, AUS, Maj. Henry B. Gwynn, MC, Maj. Edwin M. Loye, AUS, Capt. Arthur C. Allen, MAC, Capt. Alva R. Dittrick, AUS, Capt. John M. Gracie, MAC, and Capt. Burton M. Langhenry, MAC.

Hospital Construction Bill Termed First Step in Good Health Pattern

THE passage of the proposed Senate Hospital Construction Bill will be an "excellent step forward toward solving the perplexing problem of supplying adequate hospital, health services, and medical care to all of the people," testified Dr. Donald C. Smelzer, president of the American Hospital Association, before the Senate Committee on Health and Education on February 26.

Under the provisions of the Bill, introduced jointly by Senators Harold H. Burton, of Ohio, and Lister Hill, of Alabama, construction of new and additional facilities would not be started until war conditions permit, but the sponsors feel it essential that a well-coordinated program be planned immediately to warrant the efficient expenditure of Federal funds at that time.

Authorizing Federal financial assistance to statewide surveys of hospital and health facilities and the development of expansion plans, as well as paving the way for appropriations which would partially absorb the cost of needed additional hospital construction and expansion; the bill would authorize Congress to earmark $100,000,000 in the first year and unstated amounts thereafter. Appropriations, distributed to states according to population, wealth, and need, would be approved by state survey committees, the Surgeon General of the United States Public Health Service and a national advisory committee of eight hospital and health authorities.

"We support Senate Bill 191 not only because it provides for assistance in the construction of nonprofit and governmental hospital facilities but because we believed the proposed grants of Federal funds for that purpose will be the incentive for hospital and medical leaders and the general public to inventory present resources in each state and to develop, as required in this proposed legislation, an integrated program to provide adequate hospital care for every citizen of each state," said Dr. Smelzer.

"These legislative steps are a necessary preliminary in the better distribution of hospital and medical care.

It is the hospitals' hope that the bill will be followed by a more adequate provision of hospital and professional care for the medically indigent, those now unable to pay for such care, and an active support by the government of voluntary prepayment hospital and medical plans such as Blue Cross and Blue Shield.

"It is fortunate that the broad aims of the bill will maintain that which is best in our present system of hospital service," concluded Dr. Smelzer, representing three thousand, two hundred member hospitals of the Association. "This country has not yet fully formulated a proper pattern for the integration of health facilities. Provisions for health centers and special emphasis on the rural health problem indicate the progressive steps possible under this proposed legislation."

At the Helm

The resignation of Dr. Alfred K. Bates, of Auburn, as a member of the Cayuga County Laboratory Board of Managers was reported on February 13 to the Board of Supervisors by the Laboratory secretary. With the resignation was a notation "to fill the vacancy the Cayuga County Medical Society has approved the appointment of Dr. G. Perry Ross." Doctor Bates was appointed for a five-year term on the Board of Managers of the Laboratory at the last annual session of the Supervisors.*

• • •

Mrs. Genevieve N. Lechevet, superintendent of Fox Hospital since February 1, 1923, has resigned her position due to ill health.

The resignation, to become effective May 1, was presented at the annual board meeting January 24.*

• • •

Dr. John S. Hickman, of Jamestown, was reelected president of the Chautauqua Region Hospital Service Corporation at the ninth annual meeting of its Board of Directors on February 13.

Other officers re-elected are: vice-president, J. Gustaf Sundin; secretary, Mrs. E. Snell Hall; treasurer, Harold C. White, Sr.

Other members of the Board for the coming year are Mrs. D. T. Grandin, member of the Board of Trustees of the W.C.A. Hospital; Fred A. Chindgren, member of the Health and Hospital Board of the Jamestown General Hospital; Hugh L. Gillis, assistant superintendent of the Jamestown public schools; Donald P. Braley, president of Watson's Manufacturing Company; Robert Dew, member of the Brooks Memorial Hospital Board, of Dunkirk; Edgar Welch, president of the Board of the Westfield Memorial Hospital; Alfred Farr, member of the Board of the Westfield Memorial Hospital.

Another member from the Brooks Memorial Hospital Board is to be selected by that Hospital.*

* Asterisk indicates that item is from a local newspaper.

[Continued on page 808]

ANNOUNCEMENT

A NEW SERVICE

In Hediger Hall, on the scenic Michell Farm grounds, we now have accomodations for a limited number of elderly ladies needing some supervision and medical care in a homelike atmosphere.

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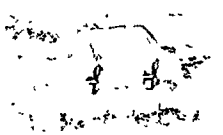
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[Continued from page 806]

• • •

Among appointments Governor Dewey is sending to the State Senate for confirmation is the name of Dr. Hyzer W. Jones, of Utica, as a member of the Board of Visitors of the Utica State Hospital.

Dr. Jones first was appointed to fill the unexpired term of Dr. W. L. Grogan who died while in office and is a candidate for reappointment to a full seven-year term.*

• • •

Dr. Margaret Bashford, of Yonkers, was granted a temporary appointment as medical inspector in the Yonkers public schools on February 8..

The Board of Education nominated Dr. Bashford to the Municipal Civil Service Commission for non-competitive examination for the position. On receipt of the proper certification by the commission, she will be appointed to serve two hours daily through August 31.

Dr. Bashford received her degree from Cornell Medical School in 1941 and completed internships in pediatrics in the New York Hospital in 1943 and in Boston Children's Hospital in 1944 and completed a residency in pediatrics at Grasslands Hospital.*

Dr. Albert David Kaiser succeeded Dr. Arthur M. Johnson, Rochester city health officer, on April 1, Public Safety Commissioner Woods announced.

Dr. Johnson, who had reached the retirement age of 70 but was kept in the city service at the request of Commissioner Woods, asked to be relieved of his duties on March 31.

Selection of Dr. Kaiser and his acceptance brought surprise and gratification, because of Dr. Kaiser's outstanding reputation in the medical profession of the country. The job will compel Dr. Kaiser to give up his private practice.

Appointment has the approval of the New York State Public Health Council.

Dr. Kaiser graduated from Harvard Medical School in 1913. He received his hospital training in Rochester and Boston.*

• • •

Dr. Samuel W. Mills was elected chairman of staff for 1945 of the Horton Memorial Hospital, Middletown, New York. He succeeds Dr. Anthony Morreale. Other officers elected are Dr. William J. Hicks, vice-president, and Dr. Stiles Ezell, secretary-treasurer.

Newsy Notes

Joseph Huber, brewer and former president of the First National Bank of Brooklyn, left $15,000 each to St. Catherine's Hospital, Wyckoff Heights Hospital, the Brooklyn Home for Blind, Crippled and Defective Children, the Servants of Relief for Incurable Cancer and St. Anthony's Hospital, Little Sisters of the Poor, in Brooklyn.*

• • •

Plans for the establishment of a neuropsychiatric clinic at the School of Medicine and Dentistry of the University of Rochester with funds given by Mrs. Helen W. Rivas, of Leroy, New York, are announced by the university's board of trustees. Of the gifts, a part is designated for the construction and equipment of a building to house the clinic. Funds from a trust set up to operate and maintain the clinic will limit the number of patients to about fifty. According to present plans, construction will start as soon as materials are made available.*

• • •

A total of $152,822 had been subscribed to February 18 to the building fund for the new Arnold Gregory Memorial Hospital, to be constructed in Albion, by the people of the seven central and eastern town of Orleans County.*

A three-hundred-bed veterans' hospital at Saratoga Springs is now assured.

This announcement was made on February 24 to Rep. B. W. Kearney, Gloversville, by Lt. Col. George Ijams, deputy to Gen. Frank E. Hines, head of the Veterans' Administration, Washington.

• • •

The U.S. Veterans' Administration opened negotiations in Albany on February 17 to provide by formal contract hospital facilities and medical care for disabled veterans of World War II. At present there are no formal contracts for such care with any Albany hospital or with any Albany physician.

Lt. Col. Edward H. Gibbons, clinical director of the Veterans' Facility at the Bronx, conferred with Dr. Thomas Hale, medical director of Albany Hospital, for the announced purpose of negotiating a formal contract for care there of veterans of World War II.

At the same time, Lt. Col. Gibbons arranged for a conference also with Dr. Arthur J. Wallingford, president of the Albany County Medical Society, with a view of signing up formally several Albany physicians to provide medical examinations and treatment for veterans of World War II in Albany.

SAME OLD WRONG WAY

A suggestion that all that's printed is not necessarily gospel was made by Dr. Kirby Dwight when he was installed as president of the Medical Society of the County of New York. "In our house," he remarked, "we recently got a book on the bringing up of cats.

"Everything we had ever done in the feeding or training of our cats was wrong." Since Dr. Dwight's last cat died at the ripe old feline age of twelve, he threw away the book, he said, and is raising the current kitten in the same old wrong way.—*N.Y. Herald Tribune, Jan. 23, 1945*

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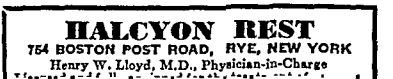
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William A. Ackroyd, M.D., of Binghamton, died on February 9 after a short illness. Born June 3, 1886, in Albany, he was graduated from Albany Medical College in 1913. He continued his studies in New York City and at Harvard Medical School, specializing in eye diseases. He was a member of the American Medical Association, the Broome County Medical Society, and the New York State Medical Society. He had been on the staff of the Endicott Johnson Corporation's medical division since about 1916, except for the period when he served in World War I.

S. Josephine Baker, M.D., D.P.H., well known in the development of child hygiene services, the N.Y. Department of Health, and in association with the Federal Children's Bureau, died at the New York Hospital on February 22, at the age of 71, after a month's illness.

Dr. Baker, pioneer in the field of child hygiene, was the organizer and director of the first child health bureau to be established under government auspices in 1908 in New York, and served in numerous capacities as a guiding force in the movement which resulted in an outstanding lowering of the mortality rate among children. She was born in Poughkeepsie in 1873, received her medical degree in 1898 from the Woman's Medical College in New York, was an honorary president of the Children's Welfare Federation, a lecturer at Columbia and New York University, and a member of many medical societies. She wrote a popular autobiography, "Fighting for Life," published in 1939.

William J. Baumann, M.D., of Brooklyn, died on January 23 of a heart ailment. Born in Brooklyn, Dr. Baumann attended Long Island College of Medicine in Brooklyn, and received his medical degree from Baltimore Medical College. He served as intern and house surgeon at St. John's Hospital, Long Island City, before beginning his practice in Brooklyn. He was a member of the Kings County Medical Society and the Medical Society of the State of New York.

Harry Berkowitz, M.D., of Queens, died December 8, 1944. He was graduated from University and Bellevue Medical College in 1909. He was a member of the American Medical Association and the Kings County and State Medical Societies.

Joseph McDonald Bobb, M.D., of Buffalo, died on January 30. He was a graduate of Meharry Medical College in 1934, and a member of the National Medical Society and the medical societies of the County of Erie and New York State.

Frank V. Brownell, M.D., who had practiced medicine for many years in Albany, Schenectady, and Canajoharie, died on March 6 at his home in Canajoharie, at the age of 88. Until his retirement in 1938 he was a member of the staffs of the Albany City Hospital and Ellis Hospital in Schenectady.

DeForest W. Buckmaster, Maj., MC, formerly of Jamestown, and former chief surgeon at Ft. Custer and Ft. Brady, Michigan, died at Walter Reed Hospital, in Washington, on February 3 after an illness of several months.

Born in Salamanca, N. Y., he received his medical degree from the University of Michigan in 1921, started practice at Frewsburg, and six years later moved to Jamestown, where he became one of the city's most prominent surgeons.

He was a past-president of the Jamestown and Chautauqua County Medical Societies, a member of the American Medical Association, Western New York Surgical Association, the Buffalo Academy of Medicine, and a fellow of the American College of Surgeons.

Frederic R. Calkins, M.D., pioneer surgeon of northern New York State, died on February 24 in Watertown, at the age of 73. Dr. Calkins observed the fiftieth anniversary of his graduation from Bellevue Hospital Medical College in March of last year. Several years after his graduation in 1894 he began to specialize in surgery, a comparatively new field in those days, and at his death was an outstanding surgeon of the north country. He was formerly chief surgeon of the House of the Good Samaritan and Mercy Hospital, and senior member of the medical firm of Calkins and Farmer, which he founded in 1912 with Dr. Harlow G. Farmer. He was twice president of the Jefferson County Medical Society, a member of the State Society and the American Medical Association, a director of the American Society for the Control of Cancer, and a fellow of the American College of Surgeons.

James William Charters, M. D., of Buffalo, died on January 1. He was graduated from the University of Buffalo Medical College in 1895, and had served as associate physician on the staff of the Millard Fillmore Hospital in Buffalo.

Daniel Joseph Daly, M.D., of New York City, died on February 10. He received his medical degree from the University of Maryland, Baltimore, Medical College, in 1905, and had been practicing in New York City at the time of his death.

Lavinia R. Davis, M.D., of Pulaski, died on February 8 at her home at the age of 81. Dr. Davis, a graduate of the College of Medicine, Syracuse University, practiced in Oneida for over forty years, the city's only woman physician. She was one of the early and ardent advocates of women's suffrage, a leader, state officer, and one-time national lecturer of the Women's Christian Temperance Union. She was a member of the Oneida City Medical Club, the New York State Medical Society, and the New York State Women's Medical Society.

Sydney C. Feinberg, Capt. (MC), AUS, formerly of New York City, died in the service on December 23, 1944. He was graduated from the College of Physicians and Surgeons in 1919, and before entering the service was senior clinical assistant at the Mt. Sinai Cardiac Outpatient Department.

Ross M. Fisher, M.D., of Syracuse, attending physician at Crouse-Irving Hospital for thirty years, died on February 4 at his home after a long illness. He was a graduate of the College of Medicine, Syracuse University, class of 1906, and a member of the Academy of Medicine, the Onondaga County and New York State Medical Societies, and the American Medical Association.

James W. Fleming, M.D., of Utica, eye, ear, nose, and throat specialist, died suddenly on January 31 at the age of 63. Born in Little Falls, Dr. Fleming was graduated from Cornell University and Albany Medical School. He served his internship in Faxton Hospital, Utica, and was a member of the staff of that hospital for thirty-five years. In 1919 he studied at the Manhattan Hospital, specializing in eye, ear, and nose studies. He was a member of the Oneida County and State Medical Society.

[Continued on page 812]

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[Continued from page 810]

John F. Griffin, M.D., of Malverne, specialist in urology, died in his home on January 23 of a heart attack. Dr. Griffin received his medical degree from Dartmouth Medical School. He had been chief of staff of St. Catherine's Hospital in Brooklyn for more than twenty-five years, retiring last November. He was on the staff of Holy Family Hospital and also was a member of the Kings County Medical Society.

John Guttman, M.D., of Brooklyn, died on December 31, 1944. Dr. Guttman was graduated from the Vienna Medical College in 1892. A specialist in opthalmology, laryngology, rhinology, and otology, he was a diplomate of the American Board of Otolaryngology. He was a member of the Kings County and State Medical Societies, the American Medical Association, and the Academy of Medicine.

Eugene J. Hanratta, M.D., of Watervliet, prominent physician of upper New York State, died on February 5 after a long illness. He received his medical degree from Albany Medical College, and had practiced in Watervliet since his graduation. Dr. Hanratta was elected staff president of St. Joseph's Maternity Hospital in Troy fifteen years ago and held the office until his death. For twenty-five years he was staff assistant at the Troy Hospital. He was a member of the Albany County and State Medical Societies and the A.M.A.

William M. Haynes, M.D., of Sherman, died on January 21 at the age of 82. Dr. Haynes had practiced medicine in Sherman for the past fifty years, and was a typical country doctor, covering much of the country in the old days in his horse-drawn buggy. He was graduated from Buffalo Medical College in 1888.

Henry P. Hirsch, M.D., former medical supervisor of the state department of hygiene of the Board of Health in New York City from 1900 to 1920, died February 19 of a heart disease. Dr. Hirsch received his medical degree from New York University in 1891. He was a member of the New York County and State Medical Societies and the American Medical Association.

Herman L. Jacobius, Capt., (MC), AUS, of New York City, was killed in action in the Netherlands on September 28, 1944. A graduate of Cornell University Medical College in 1939, Captain Jacobius served an internship at the Mount Sinai Hospital, New York, and a residency in medicine at the Montefiore Hospital, New York. He took part in the North African campaign and the invasion of Sicily and Italy.

Walter Max Kraus, M.D., of New York City, died on August 18, 1944, at the age of 55. Dr. Kraus was graduated from Johns Hopkins University School of Medicine in 1913, and served in the Army during the World War I. In 1943 he was commissioned a major in the medical corps of the Army, and in 1944 he resigned that position. He was a specialist in neurology and psychiatry. Besides membership in the New York County and State Medical Societies and the American Medical Association he held membership in the American Neurological Association, American Association of Neuropathologists, and the Association for Research in Nervous and Mental Disease.

Michael Saul G. Landa, M.D., of New York City, died on January 1. Dr. Landa was chief of the Ophthalmic Clinic of the Beth Israel Hospital for twenty-two years. He received his medical degree from Dorpat Medical College in Russia in 1900. He was a member of the New York County and State Medical Societies, the American Medical Association, and the Eastern Medical Society.

Francis Joseph Magilligan, M.D., of Brooklyn, died on February 5 at his home. He was 84 and had practiced in Brooklyn for more than fifty years. Born in Brooklyn, he was graduated from Bellevue Hospital Medical School in 1890. He was a member of the Kings County and State Medical Societies and the American Medical Association.

Thomas H. MacKinnon, M.D., of Brooklyn, died on February 10 at his home. Born eighty-one years ago in Nova Scotia, Dr. MacKinnon received his medical degree from McGill University and then practiced for three years in Liverpool, Nova Scotia. He came to Brooklyn in the early '90's. He was a member of the staff of St. Cecilia's Hospital, the Kings County and State Medical Societies, and the American Medical Association.

Ignatz Leo Nascher, M.D., of Port Richmond, died suddenly on December 25, 1944 at the age of 82. Dr. Nascher was graduated from New York University School of Medicine in 1885, after which he specialized in psychiatry.

Francis N. Pitass, M.D., of Buffalo, died on February 1 at the age of 72. Dr. Pitass received his medical degree in 1899 from the University of Buffalo School of Medicine.

Alexander J. Primrose, M.D., of New York City, died on November 8, 1944. Dr. Primrose was graduated from the College of Physicians and Surgeons in 1885.

Joseph Smith, M.D., of Brooklyn, attending neurologist at Kings County Hospital, died February 26 at New York Post-Graduate Hospital at the age of 67.

Dr. Smith was graduated from Jefferson Medical College, Philadelphia, in 1904, and joined the staff of Brooklyn State Hospital the next year, remaining there until he entered the service during World War I. He was the first president of the Brooklyn Neurological Society, a fellow of the American Psychiatric Association, and a member of the Kings County and State Medical Societies, and the American Medical Association. He was also consultant in psychiatry at Jamaica Hospital, Queens, a member of the staff of the New York Neurological Hospital, and attending neurologist at Unity Hospital, Brooklyn.

Esmonde Bathgate Smith, M.D., of Brooklyn, died on February 2 at the age of 58. He received his medical degree from Cornell University Medical College in 1909. He was a member of the Kings County and State Medical Societies, the American Medical Association, and the American Clinical Pathology Society. He was pathologist at Methodist Hospital in Brooklyn.

William C. Smith, M.D., of Scottsville, formerly of Winthrop, died March 2 at his home at the age of 87. Dr. Smith retired from active practice over a year ago. He was a graduate of New York University School of Medicine in 1881, and was St. Lawrence County coroner for sixty years.

Thomas R. Turino, Lt., (MC), USNR, of Brooklyn, was reported by the Navy as missing in action on July 18, 1943, and presumed to be dead in August, 1944. Lt. Turino was graduated from the College of Physicians and Surgeons in 1931. Before his enlistment in the Navy in 1942 he was associate gynecologist and obstetrician at the Brooklyn Hospital. He was a member of the Brooklyn Gynecological Society, the Kings County and State Medical Societies, and the American Medical Association.

Henry H. Unger, M.D., of New York City, died on January 29 at the age of 62. Dr. Unger received his medical degree in 1906 from the College of Physicians and Surgeons, New York City. He was a member of the New York County Medical Society and the Medical Society of the State of New York.

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Woman's Auxiliary

To the Medical Society of the State of of New York

Announcement

DUE to the Government cancellation of all conventions our meeting at Buffalo will be confined to an Executive Board Meeting, which will comprise the county auxiliary president or vice-president, or the president-elect, and the members of the executive board. In this way each organized county will be represented. There will be a dinner at 7 P.M., April 30, breakfast at 8:30 A.M., May 1, and a business session at 9:30 A.M. of that day. A luncheon and continued business session will be held in the afternoon.

County presidents will please notify their delegates and alternates of these changes, and those who are attending should make reservations at the Hotel Statler in the name of the Auxiliary as soon as possible.

County News

Nassau County. The regular meeting of the Woman's Auxiliary to the Nassau County Medical Society was held Tuesday evening, February 27, 1945, at the Nassau Hospital Auditorium in Mineola.

Mrs. Louis A. Van Kleeck, of Manhasset, president, presided and Mrs. Freeman Miller, program chairman, introduced the guest speaker, Mr Stanley B. Pinks, a blind man, and his dog, "Sultan."

Mr. Pinks told of the origin of the Seeing Eye Dog project in Austria and its development in Switzerland. By popular demand it was introduced into the United States in 1927. The enterprise has developed here with headquarters in Morristown, New Jersey, where the training program continues. Mr. Pinks described the intensive training program of the dogs and the subsequent training of the prospective owner. The school trains about eight hundred dogs constantly, sending them out at the rate of one hundred a year. The congeniality of man and dog is a strong feature in the success of the training.

After his talk Mr. Pinks allowed "Sultan" to lead him about the auditorium among the audience showing the perfect ease with which he evaded tripping over chairs and other obstacles.

Another speaker of the evening was Dr. Eugene H. Coon, of Hempstead, who spoke on current legislation. Mrs. J. Rembrandt Helfricht was voted on as a new member. Refreshments were served by Mrs. John L. Neubert and her hospitality committee.

The next regular meeting was held on March 27 at 8:45 P.M., at the Nassau Hospital Auditorium in Mineola. An "American Theatre Wing" speaker addressed the members on the topic, "The Returning Veteran," and also gave a sketch called, "The Way Back Home."

Schenectady County. Dr. Beverly L. Vosburgh, medical director of the General Electric Company in Schenectady, spoke to members of the Woman's Auxiliary of Schenectady County County at their luncheon meeting held February 27 at the Hotel Van Curler. Dr. Vosburgh's topic was "Medical Economics."

ACHIEVING MORE WITH LESS

War teaches a dear lesson but we are learning valuable ones from it in medicine. Never before have our soldiers been so well cared for on the battlefield and in the hospitals. The sulfa drugs, penicillin, and blood plasma have played a big part. Prompt treatment has also been of very great value. The importance of giving due consideration to the individual soldier has been demonstrated in this war also, treating the soldier as well as his wound or his disease. Another very impressive observation is the very effective and splendid type of surgery that is being done by the surgeons with limited trained assistance. Surgeons have learned as never before that time counts in an operation and has a very definite relation to the death rate in serious cases. This all sums up to the fact that brass doorknobs and tile floors, three doctor assistants, a bevy of operating room nurses, and then three trained nurses a day, are not always essential for successful surgery.

The essentials in good medicine are what need to be applied, even at home, out at the crossroads, and down by the old millstand. Medical schools need to teach the student how to do better work with less equipment and expense. Just a few men in the big centers cannot solve many medical problems. The application of the effective means must be common knowledge to the whole profession. Teaching and consultation in the centers and by the specialist are imperative, but the essentials, the plain technic and methods must be common knowledge to the rank and file of the profession. You cannot win a big war with officers only.

In establishing a four-year medical school our legislators should think straight and be convinced of these facts. The plan should be to carry effective medicine to every nook and corner of this state and to make available for treatment and teaching purposes all the clinical material within the bounds of our two million population.—*Editorial, Mississippi Doctor, Dec., 1944*

Officers—County Medical Societies—1945

TOTAL MEMBERSHIP AS OF APRIL 1, 1945—19,209

County	*President*		*Secretary*		*Treasurer*	
Albany	A J Wallingford	Albany	H L Nelms	Albany	[illegible]	Albany
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Bronx	Moses H Krakow	Bronx	G B Gilmore	Bronx		
Broome	[illegible] G Moore	Endicott	J C Zillhardt	Binghamton		
Cattaraugus	M G Sheldon	Olean	W R Ames	Olean		
Cayuga	[illegible]	[illegible]	L W Sincerbeaux	Auburn		
Chautauqua	[illegible]	[illegible]	E Bieber	Dunkirk		
Chemung	[illegible]	[illegible]	D D Smith	Elmira	M [illegible] Butler	Elmira
Chenango	[illegible]	[illegible]	J H Stewart	Norwich	J H Stewart	Norwich
Clinton	[illegible]	[illegible]	T [illegible] P	[illegible]	T A Rogers	Plattsburg
Columbia	[illegible]	[illegible]	L [illegible]	[illegible]	L J Early	Hudson
Cortland	[illegible]	[illegible]	V [illegible]	[illegible]	[illegible]	[illegible]
Delaware	[illegible]	[illegible]	[illegible] R Bates	Walton		
Dutchess	[illegible]	[illegible]	A A Rosenberg	Poughkeepsie		
Erie			L W Beamis	Buffalo		
Essex			J E Glavin	Port Henry		
Franklin			D H Van Dyke	Malone		
Fulton			L Tremante	Gloversville		
Genesee	[illegible]	[illegible]	P J Di Natale	Batavia		
Greene			W M Rapp	Catskill		
Herkimer			F C Sabin	Little Falls		
Jefferson			C A Prudhon	Watertown		
Kings	J Tenopyr	Brooklyn	B M Bernstein	Brooklyn	I E Siris	Brooklyn
Lewis	[illegible]	[illegible]	J F Rudmin	Port Leyden	J F Rudmin	Port Leyden
Livingston			[illegible] J Hamilton	Hemlock	F J Hamilton	Hemlock
Madison			L S Preston	Oneida	G S Pixley	Canastota
Monroe			C S Lakeman	Rochester	J L Norris	Rochester
Montgomery	J A Dickson	Amsterdam	[illegible]	[illegible]	[illegible]	[illegible]
Nassau	[illegible]	[illegible]	[illegible]	[illegible]		
New York	[illegible]	[illegible]	[illegible]	[illegible]		
Niagara	[illegible]	[illegible]	[illegible]	[illegible]		
Oneida	[illegible]	[illegible]	[illegible]	[illegible]		
Onondaga	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
Ontario	[illegible]	[illegible]			[illegible]	
Orange	[illegible]	[illegible]			[illegible]	
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Schoharie	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]
Schuyler	[illegible]	[illegible]				
Seneca	B Riemer	Romulus			[illegible]	
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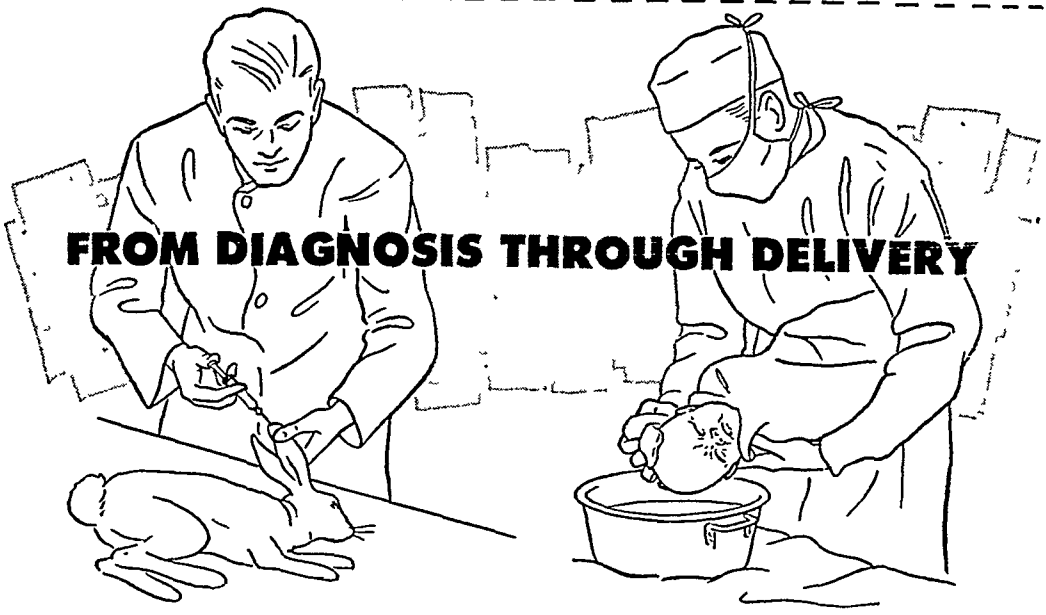
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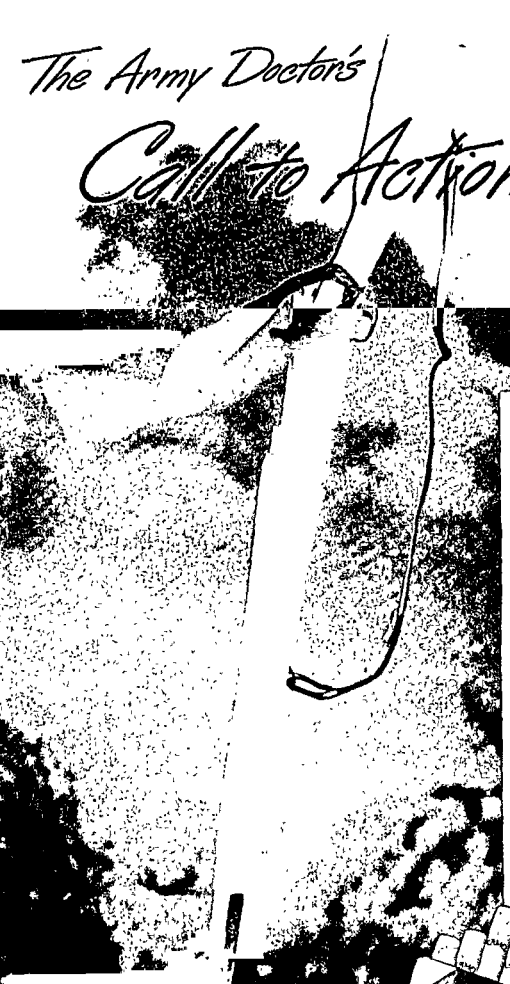
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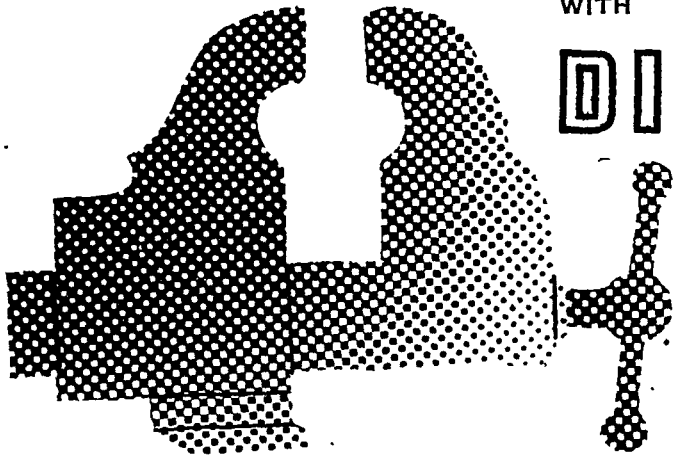
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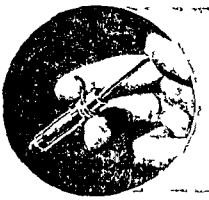
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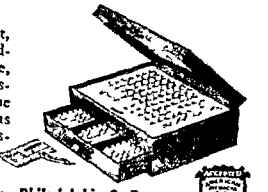
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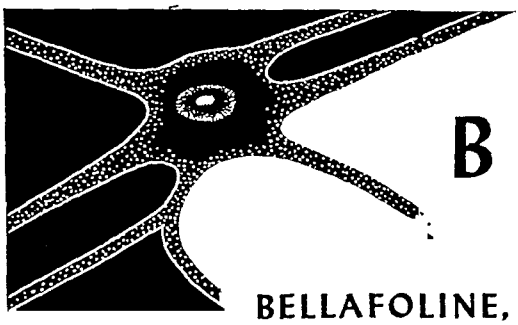
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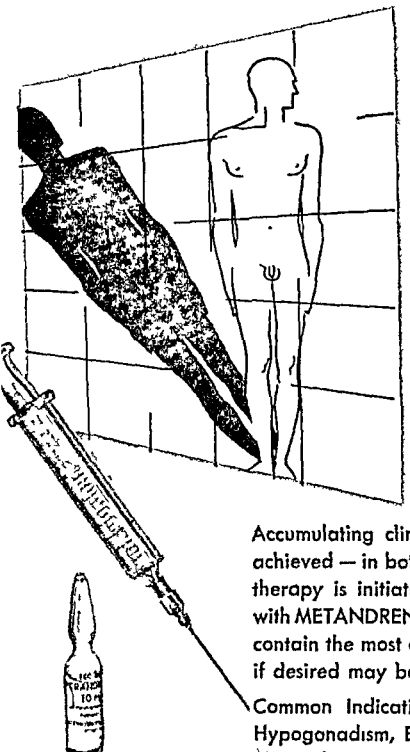
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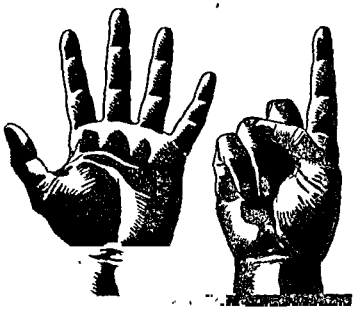
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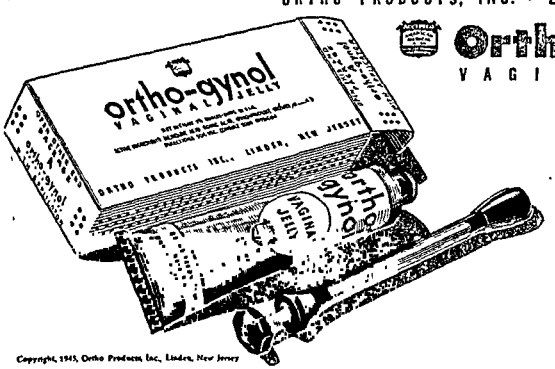
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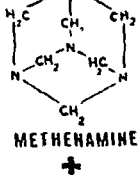
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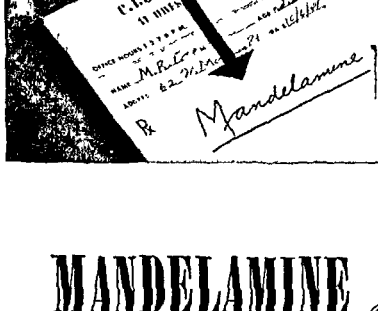
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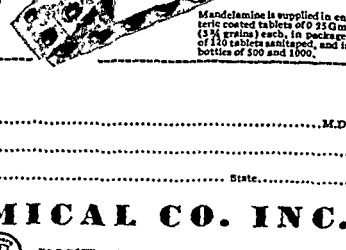
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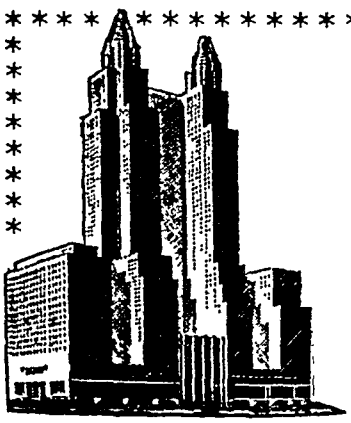
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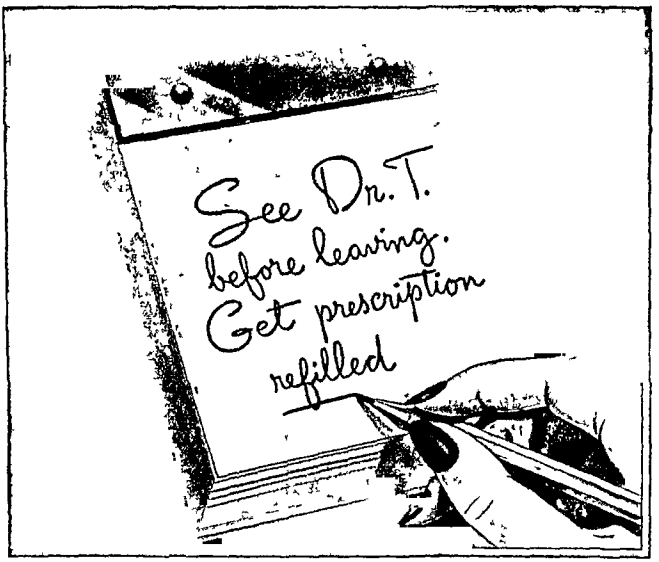
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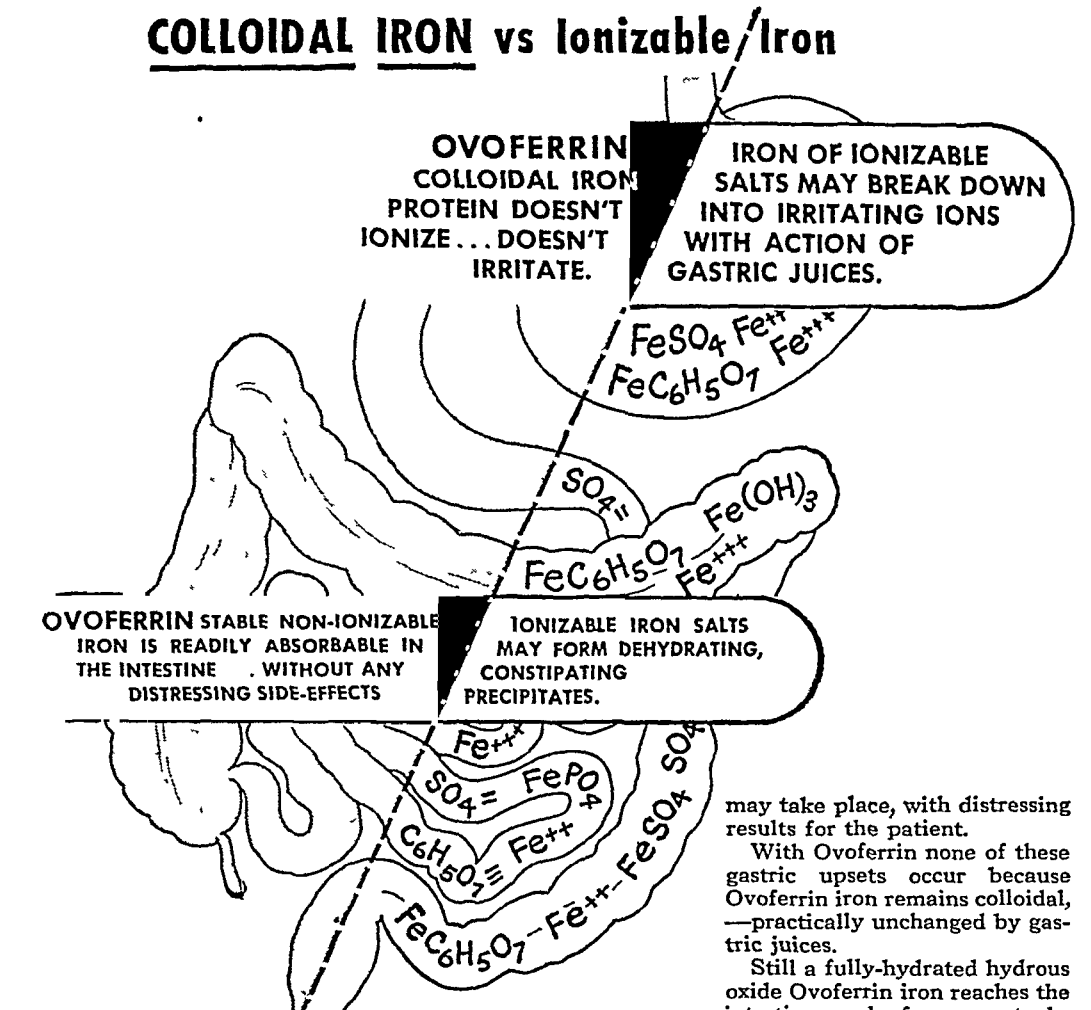
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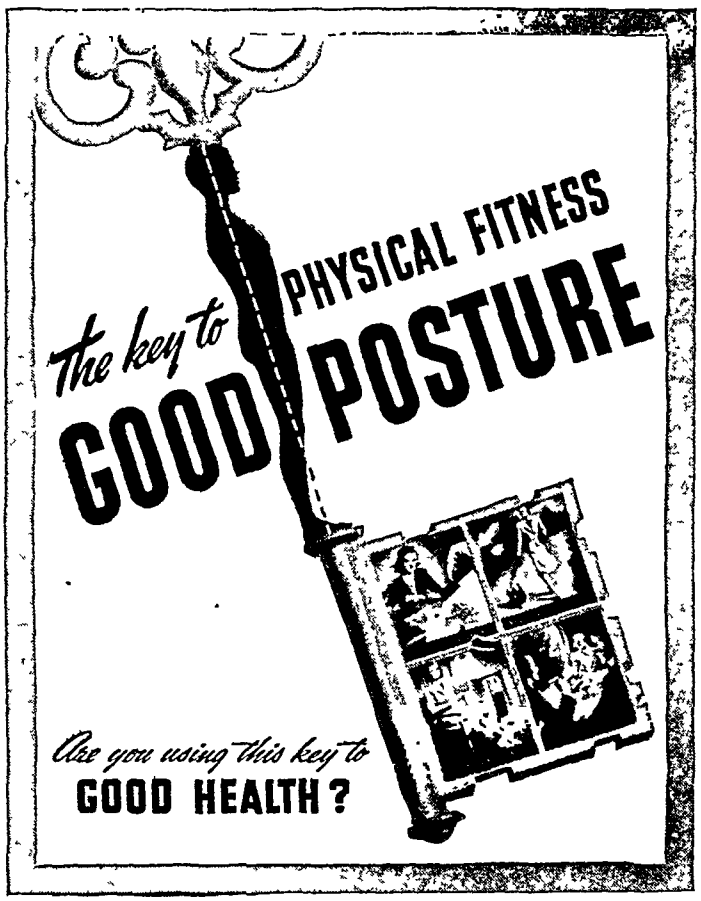
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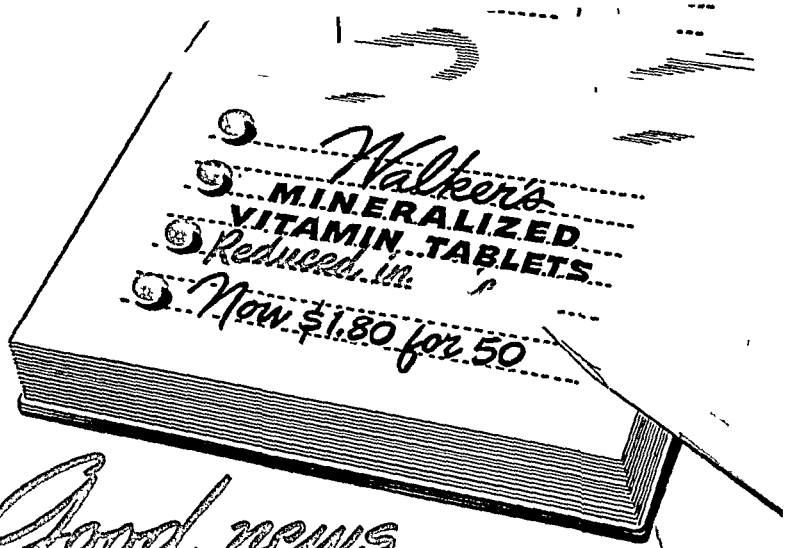
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REPORTS

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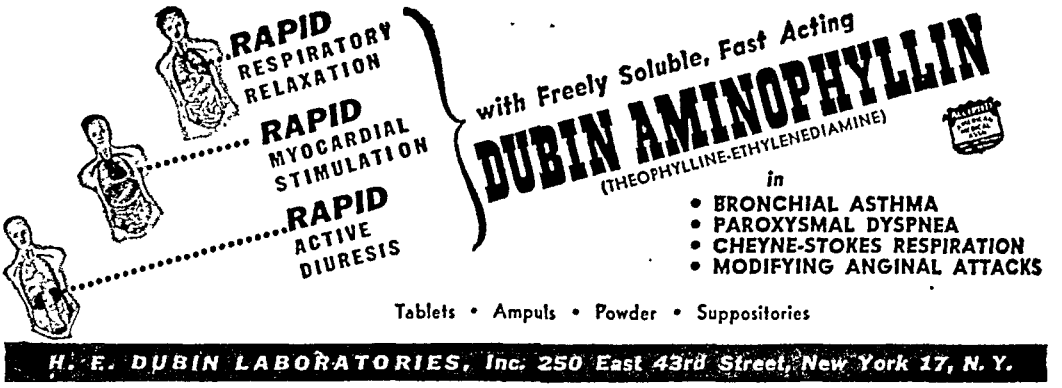
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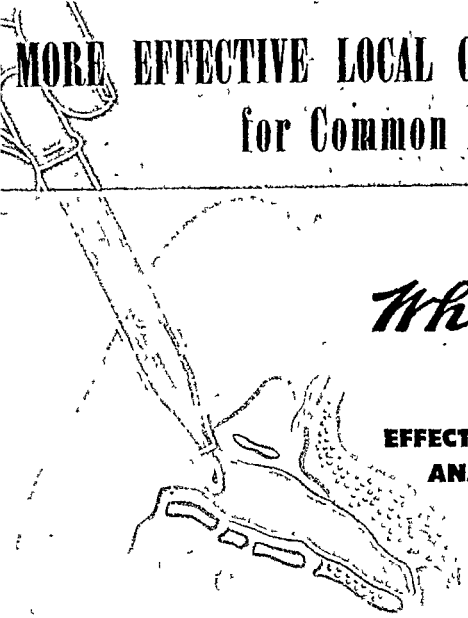
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Carbamide (Urea)	10%
Sulfanilamide	5%
Chlorobutanol (anhydrous)	3%
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Advantages of Combining Carbamide with Sulfonamide:

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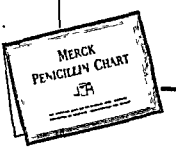
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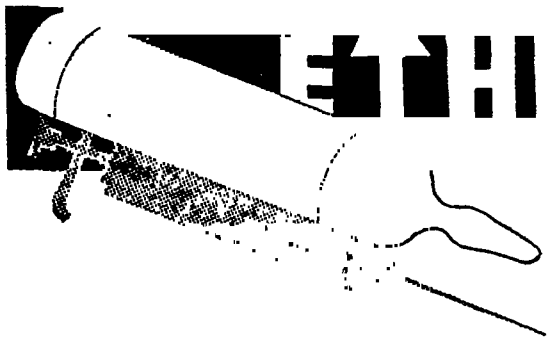
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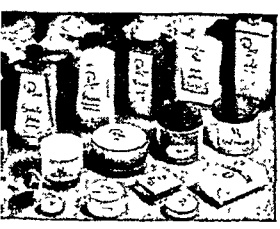
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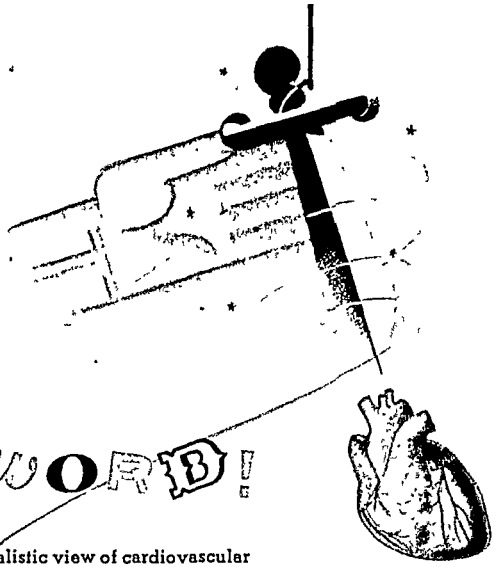
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MALTBIE CHEMICAL COMPANY • NEWARK, NEW JERSEY

CALPURATE

Relieves Symptoms—Yet Avoids G-I Upset

REFERENCES—1. Boyer, N. H.: J. A. M. A., 122:397, May, 1943. 2. Comeau, W. J.: J. Maine M. A., 32:10, 1941. 3. Gilbert, N. C.: Quart. Bull. Northwestern Univ., 16:179, Oct., 1942. 4. White, P. D., Bland, E. F., and Mishall, E. W.: J. A. M. A., 123:801, 1943. 5. Ziskin, T.: J. Lancet, 57:292, 1937.



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Iron (chemically combined with protein)	25 mg.
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DOSAGE — For adults and children: 4 tablets daily, immediately after meals.

Supplied in bottles containing 60 tablets.

[1] Best and Taylor, Physiological Basis of Medical Practice, Williams and Wilkins Company, Baltimore 1943 99

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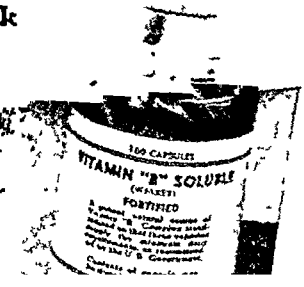
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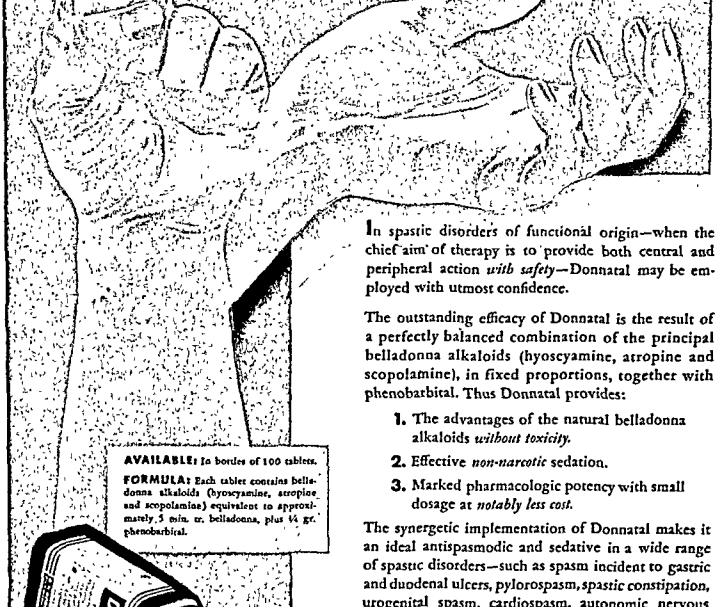
MYRON L. WALKER CO., Inc.

Mount Vernon **New York**



1. Jolliffe, Norman, Quart. Jour. Stud. Alcohol, Dec., 1940.
2. John Romano, Amer. Jour. Med. Sciences, Vol. 1, No. 5.

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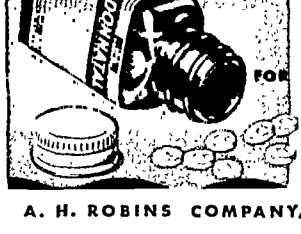
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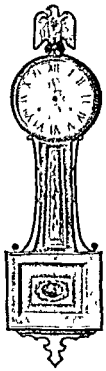
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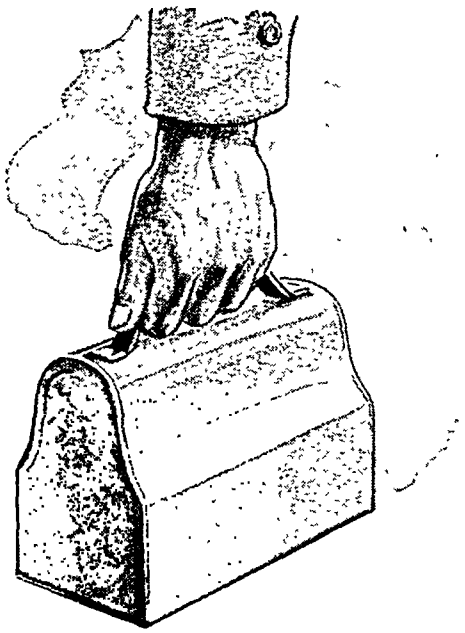
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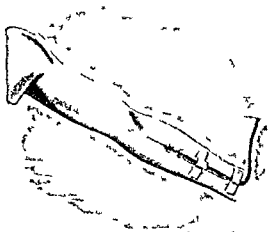
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VOLUME 45 APRIL 15, 1945 NUMBER 8

Editorial

Virus Diseases, II

A connecting link between bacteria and the viruses is a group of very small, pleomorphic organisms classified as Rickettsia They are the infecting organisms of typhus, Rocky Mountain spotted fever, and trench fever In size they are about midway between Bacillus prodigiosus and the large virus of psittacosis They stain poorly with bacterial stains, but they can be cultivated only on living tissues They exist only in living cells Thus, in size, staining reaction, and parasitism they fit perfectly the conception of the degradation of a bacterium toward the lower level of a virus Their intermediate hosts are arachnids—ticks, mites, fleas, and lice

In like manner the large viruses of psittacosis, lymphogranuloma, and trachoma, already mentioned as being sensitive to the sulfonamides, are now being referred to as the lymphogranuloma group It seems likely that they will be given a classification between the rickettsia and the smaller viruses With further studies other subdivisions will doubtless be recognized

The remarkable variation in size of virus bodies and a comparison with the rickettsia and the bacteria is shown by the following dimensions in millimicrons

B prodigiosus	750
Rickettsia	300
Vaccinia virus	125–175
Bacteriophage (large size)	100
Tobacco mosaic virus	33
Yellow-fever virus	17–25
Poliomyelitis virus	10–15
Foot-and mouth disease virus	8–12
Hemoglobin molecule	6 7
Egg albumin molecule	4

Of great theoretic interest is the greater complexity both of structure and function in the largest viruses as compared with the smallest ones Chemical analysis shows little difference between the composition of bacteria and that of the virus of vaccinia Protein and carbohydrates, sulfur, and phosphorus exist in about the same proportions in both They are both agglutinated by immune sera From these and other considerations, leading authorities conclude that this virus differs from a coccus, for instance, only in being smaller and in lacking certain enzymes necessary for an independent existence It is the lack of these enzymes that condemns it to a parasitic mode of life It can live only in an intracellular environment where the enzymes are provided by the host, or where

the parasitic virus may find ready-made the substances which it is, itself, not capable of synthesizing.

In 1906, Paschen described minute bodies, now called elementary bodies, in the cells of vaccinia lesions. The much larger cell inclusions previously seen under the microscope are now thought to be tightly packed masses of Paschen bodies. The virus of vaccinia is approximately 150 millimicrons in diameter. The Paschen bodies are about the same size and have been proved to be highly infectious. They probably constitute the virus itself.

In contrast to the complexity of the virus of vaccinia is the simplicity of structure found in the much smaller virus of tobacco-mosaic disease. In 1935 Stanley salted out from infected tobacco tissues fine needle-shaped rods which reproduced the disease even after repeated dissolving and recrystallization. Analysis proved them to be crystals of nucleoprotein. Because they grow in only two planes they are called para crystals. Three years later true twelve-sided protein crystals were obtained from tomato plants infected with bushy-stunt virus. These also reproduced the disease after repeated solution and recrystallization. It is believed that these bodies are single enormous protein molecules, probably the simplest form of life capable of reproduction. No crystalline form has yet been found among the viruses which infect animals.

What conclusion can be drawn from this gradation of pathogens from a single giant molecule to an organism like a bacterium with its complex structure and its specialized functions by which it synthesized organic matter from inorganic, and by which it is enabled to grow, reproduce, and move from place to place? How shall we explain the transition from one to the other?

To the earlier students of the subject it was natural to read into the picture an evolutionary progression upward from the lowest to a higher plane of life. The explanation offered by most bacteriologists today is the exact opposite. To them it appears to be a simple case of parasitism. All parasites are examples of a phenomenon which has of late years become evident in human society. That is a willingness to exchange independence for security. Parasitic worms are descended from free-living species of earlier times.

Bacteriologists are well acquainted with the loss of function from disuse. For example, the colon bacillus is a rugged individualist. It can synthesize the materials necessary for its well-being from a few simple carbon compounds, ammonia, and salts. By contrast, the influenza bacillus has learned to depend on the tissues of its hosts for many of its needs, and has therefore lost some of its enzymes. Consequently, it cannot grow on the simple culture media on which Bacillus coli thrives. It must have relatively complex foods, even including tissue extracts. Its colonies are pinpoint in size, but if almost any other bacterium is planted beside it, it immediately begins a more vigorous growth. Its neighbor has furnished the enzymes which it lacks. It is also to be noted that it is one of the smallest bacteria. Many other illustrations could be cited.

The rickettsia are bacteria which have acquired the parasitic habit to the extent that they no longer synthesize certain enzymes. The molecules concerned with the making of those enzymes undergo the atrophy of disuse. Hence the bacterium becomes smaller. Having lost the power to synthesize the materials necessary to its existence it must live inside a living cell, although that cell need not be an actively proliferating one.

The lymphogranuloma group of viruses represents a further degradation. These have surrendered still more enzymes, lost a corresponding number of molecules, and are consequently smaller. Also, they now require the substances furnished by a metabolizing cell. Their parasitism has become more nearly complete. And so the process continues until a stage is reached at which no enzyme-producing molecules are left and the organism consists only of a single mass of complex protein. It retains only the nuclear material with its inherent power of division. It is a naked nucleus without a cell of its own to nourish it, and so it must adopt a cell in order to survive. It has become the ultimate in parasitism.

It is impossible, of course, to prove the correctness of this theory, and all workers in

the field do not accept it. It is quite as logical to assume a naked nucleus as the beginning instead of as the end of the process.

In that case the lower forms ascend by a series of increments, adding instead of losing new enzymes and molecules, until they attain the dignity of independent existence and the size, functions, and complex organization of the bacteria. Whether we adopt the theory of parasitism and successive degradation or that of evolutionary upward progression may depend on whether we are pessimists or optimists.

Current Editorial Comment

Progress and Conservatism

The tendency to resist change, which seems to be an ever-present factor in human behavior, is nowhere better exemplified than in the history of medicine. For centuries it was heresy to question or to depart from the teachings of Galen. When Semmelweiss proclaimed that childbed fever was infectious and transmissible, he was driven insane by the persecution which he suffered at the hands of his contemporaries. The leaders of our profession bitterly opposed the introduction of the ligature by Paré, of antisepsis by Lister, and of vaccination by Jenner. Even ether as an anesthetic was branded as a nostrum.

The amazing tempo of medical progress today seems proof that the days of reaction have passed. On the contrary, we seem to lack even a healthy skepticism. Present-day practitioners eagerly accept and use new drugs, appliances, and technics even before their value has been scientifically established. In the recent past we have seen the waxing and waning enthusiasm for vaccines indiscriminately used, for Bier's passive hyperemia, the maggot treatment of osteomyelitis, the tannic-acid treatment of burns, nephropexy, plication and fixation of the cecum, and now the use of vitamins to prevent colds and for patients showing no vitamin deficiency. In the long run this is all to the good. It is in accord with St. Paul's injunction, "Prove all things; hold fast to that which is good." A receptivity amounting to gullibility is better than an unreasoning opposition to everything that is new.

We see the discovery and immediate application of an amazing category of new methods and new therapeutic weapons and we rejoice that the bad old days are gone forever. But there is danger that our rejoicing may end in smug complacency. While holding fast to things that are good, we may fail to jettison those that are false. John Tyndall once wrote something to the effect that man's mind is like a garden. It would be easy to plant the seeds of new truths were it not so difficult to destroy the weeds of old errors. This has too often been demonstrated by what we euphemistically call conservatism.

A notable example of the persistency of a deeply rooted fallacy is the treatment of peritonitis by drainage. The fallacy was proved clinically by Robert T. Morris in 1897 and experimentally by Yates in 1905. British Army surgeons in 1918 proved it when they reduced the mortality of gunshot wounds of the abdomen from 100 per cent to about 50 per cent by closing the peritoneum and omitting the drains. Many reports from our own civilian surgeons have confirmed it. Steinberg, in his recent monograph on peritonitis, makes this significant statement: "It is an interesting commentary that although most of the opinion expressed in the literature is opposed to draining the peritoneal cavity the procedure is employed extensively in actual practice." Nondrainage, except in a few specific types of injury, is now standard practice in the medical services of our own Army and Navy. In spite of incontrovertible evidence the great majority of American surgeons cling to a harmful practice rather than to give up a perniciously false belief.

The greatest threat to medical progress today is not technical, but sociologic. The exigencies of war will not permit obstructive rigidity in medicine or surgery. Progress in those fields is assured. On the other hand, war activates the ferment of social unrest and speeds up the sociologic changes which now constitute our most vital problem. We are living in a period of social and economic change when the preservation of all that we hold good calls for the highest quality of statesmanship. A die-hard resistance to all change will be as fatal as the attempt of a ship's captain to ride out a typhoon while at

anchor. His safety lies in his freedom to sail either with or into the wind as his judgment dictates.

Fortunately for us, our Society has leaders who are aware of the storm and who are capable of steering us through it. The Planning Committee on Medical Policies is our Board of Strategy. For two years it has been preparing the blueprints of a program. When its report reaches the House of Delegates it is to be hoped that it will receive dispassionate consideration. Life is adaptation to environment. Without changes we shall perish. It is no time to turn our faces backward. The House of Delegates has not always looked forward. Only a few years ago it rejected in its entirety a proposal for voluntary nonprofit sickness insurance, a policy which the Society is now making every effort to promote and encourage.

Correspondence

Hematogenous Osteomyelitis

To the Editor:

May I be permitted to comment upon Dr. Flynn's paper in the JOURNAL, issue of March 1, and upon the discussion of the paper by Dr. Wetherell?

It seems difficult to understand why the profession has not, up to the present, obtained and understood the correct interpretation of the course of events in acute hematogenous osteomyelitis, of the correct conservative attitude to assume in the treatment of this disease, and of the proper place of chemotherapy in the latter.

It must be understood that hematogenous osteomyelitis is a phase of a general infection originating from some surface lesion through the medium of bacteriemia and that the bone is only one of the many expressions of the many possible metastatic manifestations. It is very regrettable that the discussions in the literature do not sufficiently emphasize this. The treatment of the bone lesion must therefore necessarily be that of a local lesion as against the treatment of the general infection which is present in various grades of severity at the beginning of the disease.

It is true that the original general infection can disappear spontaneously, owing to the natural protective forces of the body, and that this happens in both mild and more severe general infections many more times than the profession has been led to believe. And it is equally true that nature will do far more for the patient in the early stages of development of the local bone lesion than surgery can. All the newer knowledge concerning the role of chemotherapy and the time and place of local surgical therapy must be interpreted with these facts in mind. Very few of the chemotherapeutic drugs actually kill the infecting organisms. Most of them act by inhibiting the biologic activities of the bacteria, which then assume a dormant state (bacteriostasis). Destruction of the bacteria (bacteriolysis) is then accomplished by the ordinary antibacterial agencies of the body. The drugs must be administered for a sufficient length of time and in sufficient concentration and bacterial intimacy to enable the latter to work adequately; otherwise, bacterial activity is not inhibited, symptoms recur, and the disease increases. Therapeutically this acts as an enhancement of the normal antibacterial powers of the body and in the ordinary milder case is many times not absolutely necessary, as evidenced by the numbers of spontaneous remissions of the bacteriemias. In severe grades of infection the chemotherapy is a need the imperativeness of which varies directly with the grade of infection, and the effect of which is at a maximum when the pathogen is matched with the proper drug.

Chemotherapeutic agents act best when the bacteria are in the circulating blood or the fluid content of hollow cavities or spaces, i.e., in the stage with bacteriemia. They are ineffective when the bacteria are locked away out of ready contact, and in hematogenous osteomyelitis this means within a clotted blood vessel. When the thrombophlebitis spreads outside of the confines of the bone—as in one case reported by me* to the extraosseous thrombophlebitis—if accessible, it must be excised before the bacteriemia can be controlled. In any case, when the desired effect of the drug is only temporary, it leads to masking of symptoms, to unperceived symptomless advance of the pathologic process, to unexpected recrudescence of the symptoms, and to unheralded complications.

The results of chemotherapy are not always predictable, owing to the deficient exercise of the bacteriostatic power of the drug, to the occasional difficulty of maintaining the proper concentration of the drug, to the necessity of matching the proper drug to the provocative organism, to the occurrence of certain toxic effects of the drugs themselves, and to the difficulty inherent in removing inaccessible foci of infection by surgical means, which is always necessary.

The observed results have varied all the way from very satisfactory effects to no effects at all. In the satisfactory cases, the proper interpretation of good results is difficult, owing to the possibility that such beneficial results have occurred spontaneously, as they have done many times in the past before this form of chemotherapy was available.

In cases of acute hematogenic osteomyelitis, chemotherapy is especially and perhaps only indicated in the stages of general infection (bacteriemia). Its most important secondary effect is the prevention of metastatic foci. As soon as this is accomplished definitely and permanently, the problem then becomes that of the treatment of any local lesion which the chemotherapy has not been able to prevent—i.e., for the present purpose, any focus of osteomyelitis.

In the treatment of the residual local bone lesion, there are two main objectives: (1) the conservation and/or the salvage of tissue and architectural form, and (2) the retention of function. Much more is accomplished by restricting any operative attack to the incision and drainage of accessible abscesses than to any ill-advised form of osteotomy. Nothing can replace the undisturbed inherent conservative reparative efforts and results of the natural intrinsic powers of the body.

The profession should give and the patient should demand sound surgical judgment based upon good clinical appraisal of the relative importance of the general infection and the local bone lesion and of the integration and summation of the two.

A. O. WILENSKY, M.D.

New York City
March 15, 1945

* Wilensky, A. O.: Pennsylvania M. J. 46: 953 (1943); Surg. 15: 653 (1944).

SIGMOIDITIS

ANTHONY BASSLER, M D , F A C P , LL D , New York City

THE sigmoid, or pelvic colon, is the narrowest and most movable part of the large bowel Held in place by a varying length of mesosigmoid, *its main function is that of collecting* feces for ejection By extension it is subject to the pathologies of the colon and rectum, being more susceptible to those of the colon than of the rectum The sigmoid has more the structure and function of the colon, the structure of rectum is simpler and similar to that of an excretory tract

Viewed endoscopically, the rectum is paler, smooth, and large in caliber, the sigmoid is deeper in color, velvety, and narrow The rectosigmoidal reflex operates at the location that joins the sigmoid with the upper end of the rectum, and operates without marked sphincteric muscular control, like the ileocecal valve Defecation is brought about by tension in the sigmoid overcoming the rectosigmoidal area, contracture of the abdominal and pelvic musculature and relaxation of the anal sphincters Normally the rectum is empty of feces

Symptoms of Sigmoiditis

Constipation —Errors in the defecation mechanism of sigmoid function are responsible for more constipation than any other cause and its main cause is a chronic sigmoiditis Such rectums contain feces, the rectosigmoidal region is chronically relaxed, the sigmoid is deficient in muscular power, and there is a lack of the feeling of satiety which should follow a complete emptying of the sigmoid Much attention has been paid to colonic stasis, spasms, and atony as causes for constipation and too little to the sigmoid itself Often local treatments to the sigmoid will cure the symptom of constipation far better than diets, laxatives, and purgatives

Pelvic, Abdominal, and Back Pain and Distress —These are common symptoms of sigmoiditis, usually accompanied by constipation, and often presenting tenderness to pressure and distinct stiffening of the sigmoid Headaches, states of ill being, and other symptoms may be present Menstrual disturbances and those connected with internal female structures are seen at times

Anal Moisture and Passing of Mucus —These are not uncommon in chronic sigmoiditis and often are erroneously believed to be due to rectal conditions (such as proctitis, which usually is secondary to sigmoiditis), or to colon states in which the diagnosis of colitis is made

Hemorrhage —Quite alarming frank hemorrhage *may ensue from eroded blood vessels in the* sigmoid proper and minor types of bleeding are common Varicose veins are not uncommon in sigmoiditis One here must always keep in mind the more common causes of internal hemorrhoids and carcinoma

Polyps —Small polyps in the sigmoid are second in frequency to those in the colon, and are as common as those found in the rectum These have importance in the development of carcinoma so often found in the sigmoid, and they are produced by chronic sigmoiditis

Ulcerative Colitis —The vast majority (90 per cent) of instances of the so-called nonspecific ulcerative colitis begins as sigmoiditis or proctosigmoiditis and subsequently involves the colon Preventive medicine calls for diagnosing and treating sigmoiditis to prevent this serious disease Often the treatment of sigmoiditis will markedly benefit a not too late instance of ulcerative colitis

Diarrhea —Soft, mushy, acid types of stools may occur over weeks of time, the hypersensitive sigmoid often being stimulated by foods A short-spelled diarrhea may take place followed by pain in the sigmoid for weeks Whether these are due to chilling infection, or allergy is not clear But such cases are often accompanied by chronic sigmoiditis

Pruritis Ani and Dermatologic Conditions — Anal itching, both transitory and intractable, may be due to sigmoiditis Of course there are other reasons for intractable pruritus ani, but this one must be thought of also Small and large areas of perianal erythema, with and without vesiculation, may be encountered These are often of questionable origin but generally they are due to sigmoiditis

Diagnosis

The diagnosis can best be made by sigmoidoscopy, which is not merely proctoscopy, because the interior of the sigmoid must be visualized, not only the rectum Three things are essential for this purpose

(1) The sigmoid must be empty, this is best accomplished by a dose of castor oil the night before, or some type of a stimulating enema an hour or two before the examination is made (soapsuds or an Epsom salts enema is best for

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FIG. 1. Atonic type. No peristalsis. Rectosigmoidal reflex gone.



FIG. 2. Spastic irritative type. Much leaking at anus. No constipation. Left-sided abdominal distress. Saccharobutyric toxemia.

this). In some instances both are employed.

(2) The position accomplished by the Hanes table is best. In the absence of this, the lower extremities on a bed with the elbows on the floor would answer. The knee-shoulder position, because of spinal twist, renders finding the entrance into the sigmoid difficult. The knee-both elbows close to the knees is more satisfactory because then the spine is straight. The Sims position, with the hips raised, is often unsatisfactory for sigmoidoscopy but perfectly practical for only a rectal examination. Because of the difficulty of finding the narrow opening and the distress at times when the sigmoid is entered, the Hanes table, which prevents movement, soiling, and the dropping back of the sigmoid, is much to be preferred.

(3) A proper instrument and proper technic of passing it is essential. The average proctoscope is too short and its caliber too large. The rectum from sigmoid to anus is about 7 inches (18 cm.) in length, which is about the length of a proctoscope. For advancing into the sigmoid several more inches are necessary. Thus the instrument should be at least 12 inches (30 cm.), and one 16 inches (40 cm.) is to be preferred to the latter. The average proctosigmoidoscope is not smaller than $^5/_8$ of an inch (1.5 cm.) in diameter, and most of them are larger. Such an instrument (even with experience) would permit of satisfactory sigmoidoscopy in only about 40 per cent of patients. Therefore, a smaller caliber tube should be employed. The one recommended (which is also practical for proctoscopy) is half an inch (0.8 cm.) in caliber, and this permits of sigmoid observation in 87 per cent of instances at the time of the first examination.* An inflation bulb attachment is rarely necessary although occasionally desirable.

The anal canal and instrument should be greased with vaseline rather than with lubricating jelly. The tube should be warmed, the tip passed into the lower rectum, the obturator withdrawn, and the tube advanced up the lumen under direct vision. Time, patience, and considerations of the patient's distress are essential. After sufficient experience it rarely takes much more than five minutes to make a satisfactory examination of the rectum and sigmoid. When the tip of the tube reaches the upper rectum usually its advance is blocked. One then searches for the junction of the sigmoid with the rectum. When this is patulous and straight ahead, or slightly to the left, the opening is observed quickly. In many instances, however, the junction is more to the left side, or it is situated under one or between two folds of mucosa and thus easily escapes observation. If the tip of the instrument has rounded shoulders instead of a

* In the remaining 13 per cent the mesosigmoid is too short, or because of a lower position of the distal portion of the sigmoid it is below the junction opening. Because of spasm and other conditions at least up to 3 inches of the sigmoid is not visible. Here one should make several attempts at the examination, and if not successful, one would have to depend upon the x-ray for a diagnosis.

sharp edge, one can safely press around until the sigmoidal opening is located. Occasionally the rectosigmoidal junction is held rather firmly closed by spasm. This is seen mostly in instances of spastic colon and spasmophilic and hypersensitive individuals. A pledget of cotton soaked in saturated solution of magnesium sulfate held against it for half a minute will cause it to relax. The sigmoid should be entered slowly because, as a rule, there is considerable distress, desire for defecation, or a spasm is set up. As one advances the instrument the sensation is that the sigmoid seems to strip down on the tube. If possible at least 5 inches of the sigmoid should be visualized, and with a long enough instrument 8 to 12 inches of the interior of the sigmoid can be seen. A few puffs of air would assist if the sigmoid seems stuck together.

In chronic sigmoiditis the mucosa may appear thickened, deepened in color, and the lumen contracted. Such a mucosa, being friable, may bleed easily. On the other hand, the mucosa may be paler than normal, appear thinned out, and the lumen larger. In the first instance the circular fibers of the sigmoid may be spastic and difficult to enter, and the examination may be distressing; or it may be patulous and offer no resistance, making the examination quite painless. Microscopic examination of the sigmoid in such cases would show degenerative changes in the ganglionic cells, thinning of the musculature, obliteration of the arterioles and venules with detachment, and lyses in the epithelial and somatic cells. Superficial small ulcers, stercoral in character, diverticula, polyps, and immobility from adhesions may be present. Under ideal conditions, in the last two years the author has been able to accomplish direct vision of thirty-two polyps, tumor in 17 out of 51 instances of carcinoma of the sigmoid, fourteen sites from which massive hemorrhage have come, the pocket mouths in eleven instances of diverticula, 22 instances of ulcers, 18 of varicose veins, and the easy diagnosis of practically all of the cases of sigmoiditis, both chronic and subacute. In acute sigmoiditis with diarrhea when the mucosa is edematous and swollen and pain and distress are present, direct sigmoidoscopy may not be possible. In the beginning with these examinations one is not so successful. With experience, this is overcome, and examinations are far less distressing to the patient.

The sigmoid can also be examined by x-ray. In addition to the different lesions best diagnosed in this way (cancer, stricture, pelvic-brim adhesions, etc.), dilated and spastic states, reduplications and redundancies may be included. After the barium enema, films should be made at once and these should be anterior-posterior and oblique, so as to note the back wall of the rectum and sigmoid. Rugal pattern films are unsatisfactory for diagnosis. Irregular serrations and definite spasms are characteristic of chronic sigmoiditis. Such irritative states are the earlier manifestations, definite atony being late findings, but sigmoiditis may exist without either of these. Therefore direct sigmoidoscopy is best for the diagnosis although the x-ray should not be eliminated in the diagnosis of all sigmoidal lesions. In the female an angulated or gnarled-up looking sigmoid may be noted. For a complete examination a digital examination should precede the rectal and sigmoidal examinations. Often a carcinoma of the sigmoid, or one growing in the sulcus above one of the rectal valves may be felt and not be visualized or even noted by x-ray.

Treatment

The successful treatment of chronic sigmoiditis is simple. The items in this are:

1. The use of hemicellulose additions to the diet or hydroscopic substances (agar, plantago, etc.) to keep the stool from inspissating, thus overcoming constipation. Mineral oil may be used. Laxative and purgative drugs and salines never, a normal saline cleansing enema or glycerine suppository occasionally being much preferred if the diet and specific treatments do not succeed in accomplishing one or two daily movements. If the stools are acid, the basic diet should be high in protein, low in fat, and only 3 or 5 per cent vegetables; if alkaline, a full vegetable and fat diet with very limited proteins of not more than 100 Gm. a day.

2. The special treatment consists of two parts: (*a*) the rectal instillation of from 2 to 6 ounces (60 to 180 cc.) of the following: iodoform, 2 drams (8.0 Gm.), bismuth subnitrate, 4 oz. (120.0 Gm.), cod liver oil, ½ pint (500 cc.), and cotton-seed oil, ½ pint (500 cc.). This is put in evenings before retiring and if necessary the quantity is lowered so it does not act as an enema and is retained during the night. (*b*) In the morning a small retention enema of 6 oz. (180 cc.) is taken and held as long as possible in which is dissolved a teaspoonful (4 cc.) of ichthyol and the same quantity of fluid extract of hydrastis. Since the patients conduct these injections, it serves convenience to have them done with a 6 or 4-oz. syringe, or rubber hand bulb with a perhaps No. 26 rectal tube. These treatments are lessened as the case responds, being taken less frequently and modified as to one or the other. In the more serious states the oil mixture is best; in the lesser types or average instance of sigmoiditis, the ichthyol hydrastis is to be preferred. This, if used alone, can be instilled before retiring in amounts that

would be retained. Treatments should be kept up for weeks because chronic sigmoiditis responds slowly to treatment, and occasional observation of the sigmoid is desirable to note modifications of treatment.

If the sigmoid is tender or diverticulitis exists, rest, local heat, or short-wave treatments are helpful. In marked spasm atropine or belladonna up to physiologic doses may be useful. In obstruction, perforation, sinus formation, malignant disease, pelvic-brim adhesions, recurrent diverticulitis, and occasionally in marked redundancy with twisting, surgery would be in order. In the average case of sigmoiditis the medical treatment is satisfactory if the local treatments are kept up long enough.

Conclusions

Chronic sigmoiditis is a common clinical condition which usually escapes pointed attention. Its recognition and treatment accomplish the handling of some of the cases which heretofore had not been explained. As a condition it is easily diagnosed and can be satisfactorily treated medically.

Discussion

Dr. Lester S. Knapp, *Buffalo*—Any subject which involves pathology of the sigmoid is bound to necessitate careful study and examination of this area, due to the fact that it is in the sigmoid that indications of 90 per cent of all the serious bowel diseases are found.

Chronic sigmoiditis is somewhat like chronic appendicitis; it may simulate many conditions, and if a diagnosis of chronic sigmoiditis is made without complete study, many errors of a serious nature will be made. A complete study of the sigmoid without x-ray examination in suspected sigmoiditis is also a pitfall. X-ray has become such a popular adjunct to diagnosis that we have a tendency now to x-ray and take their report as final. This will also cause many failures. It is also true that with examination, first by sigmoidoscope and followed by x-ray studies both of which are negative, errors will be made.

Any patient with bowel dysfunction which can be explained by chronic sigmoiditis should be reexamined at definite intervals and not allowed to be discharged by the physician. As an example, I grouped 18 cases of so-called vitamin deficiency diagnosed by x-ray findings with negative sigmoidoscopic examination. Over a period of one and one-half years repeated x-ray examination following vitamin therapy was done at four- to six-week intervals. So far I have resected four cases of carcinoma found early. Each of these cases had had at least three series of colon examinations by x-ray. The x-ray findings were quite similar in the fact that a segment showed lack of haustration, and string effect, with no evidence of an ulcer in the first examination. The carcinoma was eventually found in that segment. All of these cases responded to vitamin therapy for one to three months. Whether this is of value no one can say, but it does necessitate follow-up of cases.

Another disease that can complicate our picture without thorough investigation is diverticulosis and diverticulitis. When this condition exists an ordinary diagnosis of chronic sigmoiditis is fraught with peril to the patient. These patients, when taught how to live, may avoid any complications for their natural life, but with complications a most severe surgical problem is involved. Perforation, obstruction, and abscess are the problems that tax the abilities of any surgeon. In the past we have taken conservative methods, due to high mortality figures of surgery and the fact that a large percentage of cases get well by medical methods. Possibly in the near future, due to better technic and better postoperative care, we can increase our surgical attack to this group who go on to this difficult problem, before a hopeless condition is present.

In the cases of chronic ulcerative colitis which have never had a fulminating episode, mistakes can be made. Chronic ulcerative colitis is, in my mind, one of the most vicious and terrifying diseases. I would prefer to see a carcinoma case come into my office than one of chronic ulcerative colitis.

To see a healthy young individual start with an innocuous diarrhea which responds, in the first or second episode, to ordinary medical means, and continue repeating these attacks with such a steady debilitating decline, and with the final diagnosis made when the physician finally thinks an x-ray advisable; to have a report of a colon, shortened, thickened, and without function, a picture of a useless colon, when nothing but serious surgery can save his life—this is also our problem. These patients should be examined and studied in the earlier attacks as Dr. Bassler has described in order to find this picture of ulcerative colitis. X-rays in earlier stages will not always give you this diagnosis. After negative x-rays, endoscopy will show the typical picture.

Careful medical check-up to group these cases, to eliminate specifics, allergics, and deficiencies, should be done, so that this serious group of cases can have early attention. To do so, a team is necessary which includes the internist, proctologist, and surgeon.

We have been conservative with this disease because of mortality figures also. At the present time our so-called cures are entirely the result of ileostomy and colectomy. We have all seen rather long periods of remission, but not cures, by medical treatment. I believe that in this disease we have put off more radical procedures because of fear, and that attempts to save a colon must be made if any ultimate gain in this disease is to be accomplished.

We have already found that by avoiding handling of the colon, by approved methods, and by knowing the pitfalls of performing an ileostomy, with our postoperative care, with chemistries, fluid balances, and chemical therapy, we have lowered our

figures of mortality. Further developments will arrive with our earlier diagnosis, proper grouping, and earlier surgery.

Papillomata and adenomata will be found in early stages so that we can fulgurate and destroy them as office procedures. It is fully proved that these benign tumors all too frequently undergo malignant change. Even in multiple polyposis, the hereditary type that Dr. McKenny described, early diagnosis will allow the destruction of polyps to a level where ileosigmoidoscopy can be done before colectomy to prevent permanent ileostomy.

[illegible] us a picture of [illegible] of which early [illegible] is much better results with less complications.

HEALTH ALERTNESS COURSE FOR ELEMENTARY SCHOOL TEACHERS

To acquaint the elementary school teacher with the newest ideas and procedures in health practices a fifteen-week course entitled "The Health of the Elementary School Child" is being sponsored in New York City by the Kips Bay-Yorkville District Health Committee in cooperation with the Department of Health, the Board of Education, and the Department of Public Health and Preventive Medicine of Cornell University Medical College.

The course is a discussion forum offered especially for the elementary school teacher because of the part that health plays in the whole field of child development. It considers not only the physical aspects of child health, but also emphasizes the psychologic, social, and economic accompaniments of health problems. The fifteen weekly sessions [illegible] two-point [illegible] Board of [illegible] Tuesday [illegible] t Health Center. The opening session was held on Tuesday, February 13, and the final one will take place on May 29. Topics so far discussed are the health rationale of the typical child, normal physical and emotional development of the elementary-school child, child development and mental hygiene, the intellectuall[illegible] the emotionally [illegible] icable diseases and [illegible] n the classroom. [illegible] were prominent doctors and leaders in the field of medicine, psychiatry, and public health.

The schedule and the speakers for the remainder of the sessions are as follows: April 10, "School Health Program and Role of Teacher in That Program," Dr. Leona Baumgartner, director of the Bureau of Child Hygiene, Department of Health; April 17, "Meeting the Health Needs of Children in the School Environment," Dr. Myron E. Wegman, director of research and training, Bureau of Child Hygiene; April 24, "Classroom Programs for Health for the Normal and Below-Par Child," Dr. C. C. Wilson, professor of health and physical education, Teachers College, Columbia University; May 1, "Visual Problems in the Classroom," Dr. Conrad Berens, attending surgeon, ophthalmology and laryngology, New York Eye and Ear Infirmary, St. Luke's Hospital, and "Aural Problems," the speaker to be announced later; May 8, "Health Department Services for School Children," Dr. Philip Ollstein, supervising physician, school health, Division of Research and Training, Bureau of Child Hygiene, and instructor in department of public health and preventive medicine, Cornell University Medical College; May 15, "The Teacher, the Health Staff, and Home Relationships," Miss Mary E. [illegible] sellor, B. [illegible] Economic [illegible] Gillen, director, Kips Bay-Yorkville District Health Committee, and instructor, department of public health ar[illegible] Medical [illegible] Relations[illegible] Dr. Jam[illegible] Yorkville Health District, Department of Health.

TWO CHURCHES WILL SEND MEDICAL UNIT TO ITALY

The first privately financed American medical unit has been organized to aid war-stricken Italians, provided with funds from the Congregational Christian and Unitarian Churches.

Dr. Elmer L. Sebringhaus, University of Wisconsin medical professor, told the Congregational Christian Missions Council today that the two denominations had allocated $100,000 for the unit and prom[illegible] Workir[illegible] the unit [illegible] two labo[illegible] executive [illegible] University of Minnesota, is aiding Dr. Sebringhaus in organizing the unit.

Purposes of the mission will be to study control of epidemics and the spread of tuberculosis among undernourished people, as well as diseases of underfed children.

[illegible]

[illegible] the Dumbarton Oaks plan—*N. Y. Times, Jan. 23, 1945*

GROSS INTRACEREBRAL HEMATOMAS

Report of 16 Surgically Treated Cases

WALLACE B. HAMBY, M.D., Buffalo, New York

WHILE the more common types of intracranial hemorrhage are well known, spontaneous, limited, removable intracerebral hematomas are less familiar. Twelve years ago Robinson found only 2 cases reported in the English literature, but recently numbers of these cases have been treated. This paper is concerned with 16 such cases of diverse causes, encountered at operation. Fourteen patients recovered after treatment. Cases due to cranial injury with skull fracture have been omitted from the series.

Case Reports*

To facilitate study of the cases, they are grouped into several categories. Seven of the patients suffered also from arterial disease, hypertension, arteriosclerosis, or bacterial endocarditis.

Case 1.—A 49-year-old-man had been treated previously for hypertension. On October 7, 1943, nausea, visual failure, and staggering were noted. On December 1, 1943, there were papilledema and left homonymous hemianopsia. Blood pressure was 190/110. The heart was enlarged.

Diagnosis: Right occipital neoplasm. On December 15, 1943, the ventriculogram showed a right occipital cyst (Fig. 1) which drained 30 cc. of clear yellow fluid. Right occipital craniotomy was performed. The convolutions were xanthochromic. A 5-cm. subcortical cyst was found and a 60-cc. polypoid old black clot was removed. The capsule was well defined and pigment stained; it was connected to the posterior horn of the right lateral ventricle and several arteries ran from the posterior horn into the capsule. Recovery was uneventful.

Case 2.—A 39-year-old-woman, three weeks before admittance, had suffered numbness and weakness of the right hand. There was progression in seven days to right spastic hemiplegia. A week later she had headache, semicoma, and motor aphasia. Blood pressure was 150/110. Examination revealed semicoma, aphasia, right hemiparesis, mild right hemihypalgesia, and papilledema.

Diagnosis: Left frontal neoplasm or vascular accident. On July 5, 1935, ventriculography was done. A left temporal mass was seen, and left frontotemporal craniotomy was performed (Fig. 2). The posterior second frontal convolution was fluctuant. A cyst was entered 1.5 cm. below the surface. Forty-five cc. of thick, chocolate-colored fluid was aspirated, and lavage with saline solution was done. Recovery was uneventful.

Case 3.—On January 26, 1939, a 73-year-old-farmer, after exertion, had a chilly sensation, emesis, and headache. The pain persisted, with ataxia of hands and legs. Blood pressure was 160/98. The patient was senile, uncooperative, and arteriosclerotic. His eyes showed left homonymous hemianopsia, sparing the macula. He had a weak left grip, and Babinski sign on the left. Spinal fluid pressure was 240 mm. of bloody fluid.

Diagnosis: Arteriosclerosis and subarachnoid hemorrhage from right occipital aneurysm or neoplasm. Encephalography on January 27, 1939, showed a right occipitoparietal mass. Right parietotemporal craniotomy was done (Fig. 3). The cortex was xanthochromic, and a multilocular cavity, 6 by 4.5 by 2 cm., containing dark liquid blood and an old clot was exposed. Its walls were shaggy and deeply stained. Recovery was uneventful.

Case 4.—A 46-year-old-man was admitted on March 4, 1941, with nausea, emesis, and malaise. On March 5, 1941, he had sudden unconsciousness followed by confusion and frontal headache, persisting with frequent emesis. Vision was blurred and he had progressive ataxia. Blood pressure was 200/140. Examination revealed reduced visual acuity, early papilledema, coarse left horizontal and vertical nystagmus. He had left lower facial paresis, and equivocal bilateral Babinski. There was marked ataxia and dyskinesia of the left arm and leg.

Diagnosis: Left cerebellar hematoma. On March 15, 1941, ventriculography disclosed obstructive hydrocephalus. Suboccipital craniectomy showed a cyst filled with dark, oily blood, and a black clot occupying the entire left hemisphere. The walls were of white matter; the cerebellar arteries were atheromatous. Atelectasis developed and the patient died in twenty-four hours. Autopsy revealed atelectasis, pneumonia, cardiac hypertrophy, coronary arteriosclerosis.

Case 5.—On November 22, 1942 a 48-year-old-man, while driving his car, felt sudden severe pain in his right forehead and orbit, radiating into the right temple; he had bouts of emesis and vertigo.

The patient's blood pressure was 168/110. His right pupil was dilated and fixed. There was mild papilledema and left upper homonymous quadrantanopsia. X-ray showed the pineal shadow in the midline. Spinal fluid pressure was 350 mm.; the fluid was clear and colorless.

Diagnosis: Right temporal lesion, possibly hematoma. On November 28, 1942, ventriculography showed a right temporal mass. At right frontotemporal craniotomy (Fig. 4) there was a thin subdural layer of blood. The cortex was yellow, and the temporal convolutions were widened. A solid, 60-cc. clot was seen in the temporal lobe. Recovery was uneventful.

Case 6.—A 48-year-old-man fell 5 or 6 feet on December 13, 1940; he was not unconscious, and continued working. The next day he collided with objects on his left side, then developed weakness of the left arm and leg, and headache. On December 15, 1940, Jacksonian seizure started in the left arm. Hemiplegia progressed, with headache. His blood pressure was 210/128. He had left homonymous hemianopsia. The left reflexes were abolished, and

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* To conserve space and yet to present all pertinent data, the case reports are deliberately condensed to a "telegraphic" brevity.

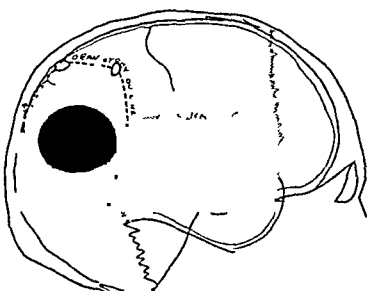


FIG 1 Case 1—Right occipital hematoma associated with hypertension

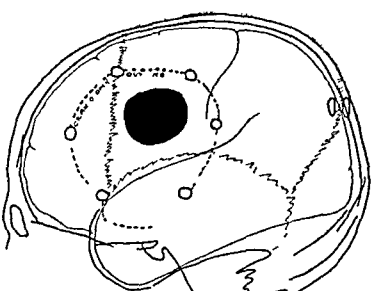


FIG 2 Case 2—Left postfrontal hematoma associated with hypertension

he had left hemihypesthesia and spatial agnosia of the left leg Spinal fluid pressure was 410 mm and the fluid was slightly xanthochromic

Diagnosis Arterial hypertension with right temporal hematoma or parasagittal parietal meningioma On March 11, 1941, ventriculography showed a right sided mass Right parietotemporal craniotomy was done (Fig 5), and a 4 cm parasagittal meningioma was removed Below the tumor bed was a 6-cm cavity containing an old blood clot His convalescence and recovery were stormy

Case 7—A 24-year old woman at the age of 6, had had scarlet fever, followed by rheumatic fever, endocarditis, and pulmonary tuberculosis with cavitation Six weeks before admission she had transient attacks of headache and four weeks before, sudden severe headache followed by persistent semicoma and aphasia Spinal fluid was normal, but under increased pressure Her blood pressure was 116/88 temperature 104 F , pulse 103, respirations, 29 She was malnourished and listless with motor aphasia She had nuchal rigidity, dilated right pupil, paresis, and right midline pineal calc was 280 mm , norm subacute bacterial viridans was present in the blood culture

Diagnosis Bacterial endocarditis, with left frontal abscess or hemorrhage On August 3, 1939 encephalography showed a left postfrontal mass *Left postfrontal exploratory trephinement* was done (Fig 6) and ity containing old Improvement was home on October 31 1939 There was no autopsy

In addition to Case 6, hematomas were associated with intracranial neoplasms in four others

Case 8—A 13 year old boy had x ray therapy for a year for intrathoracic tumor One week before admission he had sudden severe head pain and numbness of the left leg The patient was a sickly poorly developed, and poorly nourished boy He had poor right vision, the right globe was fixed, with ptosis, the right pupil was dilated and fixed, and papilledema was present He had mild left hemiparesis and ataxia Left proprioception was impaired, with bilateral Babinski There was clinical and x ray evidence of an irregular, large, calcified chest tumor

Diagnosis Thoracic tumor, right parietal metastasis with hemorrhage

On August 13, 1936 bilateral occipital trephinement was done The ventricles were not entered A right opped On August 15 craniotomy was done entricle was filled with there was a hard diffuse mass in the medial and posterior ventricular walls There was immediate improvement, but death occurred eight months later, no autopsy was performed

Case 9—A 46-year old man, two years before admission, had suffered personality changes and mood swings One year before right hemiplegia developed without aphasia, and severe emesis persisted for ten days with subsequent improvement Recently, paresis of the right hand developed, with mental dullness and right frontal headache The patient was emaciated, cooperative confused and disoriented He had ataxia of the right hand Spinal fluid pressure was 250 mm , the fluid was xanthochromic

Diagnosis *Left frontal neoplasm* On September 9, 1943 ventriculography showed obstructive hydrocephalus Suboccipital craniectomy disclosed a yellow right cerebellar hemisphere containing a 5-cm cyst of partially organized old blood and a soft, dark, hemorrhagic tumor Pathologic diagnosis was made of hypernephroma Recovery was uneventful

Case 10—A 17-year old girl had had, three and a half months before admission a convulsion of the left side of the face and tongue Jacksonian recurrence involved the entire right side She developed weakness and astereognosis of the right arm, suboccipital headache, and blurred vision

Although the inadequacies of the method are realized to conserve space a composite diagrammatic method of illustration was chosen Upon tracings of air roentgenograms or skull plates have been superimposed diagrams of the position of the lesions and of the operative approaches

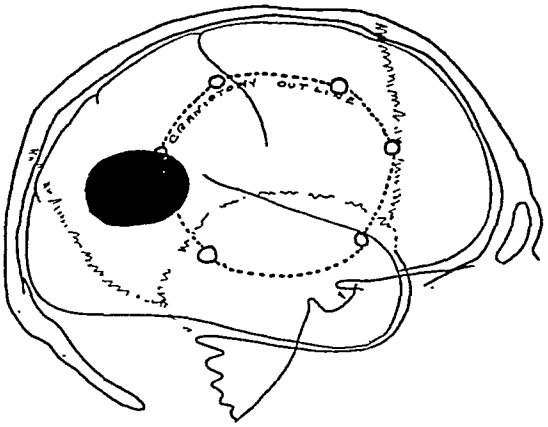


FIG. 3. Case 3—Right occipitotemporal hematoma associated with hypertension.

She had a dilated right pupil, impaired right corneal reflex, and coarse left nystagmus. Right hemiparesis, astereognosis, dyskinesia, ataxia, loss of two-point discrimination in the arm, and a little ataxia of the leg were found.

Diagnosis: Left parietal neoplasm. On January 22, 1942, encephalography showed a left parietal mass. At left parietal craniotomy (Fig. 8) the lower end of the left postcentral gyrus was widened and stained dark brown. The subcortical cavity contained 60 cc. of semisolid clot and old liquid blood. The walls were shaggy and pigmented. The biopsy revealed astrocytoma. Recovery was good; the patient was active three years later.

Case 11.—A 31-year-old-woman had a mastectomy for carcinoma on June 17, 1941. In February, 1942, progressive, generalized convulsions began, followed by left temporal and vertex headaches. On August 20, 1942, she started to have continuous generalized headache, relieved by lumbar puncture. She became increasingly drowsy for three weeks. Examination showed moderate aphasia, left frontal and occipital tenderness, and left papilledema. Spinal fluid pressure was 170 mm. and showed slightly xanthochromic fluid.

Diagnosis: Left frontal metastatic carcinoma. On September 23, 1942, ventriculography showed a left frontotemporal mass. Left frontotemporal craniotomy was done (Fig. 9) and showed an old subarachnoid clot. The temporal cavity was filled with oily, dark blood and old clots. The walls were soft and shaggy. Biopsy showed no evidence of neoplasm. Six months after recovery there was evidence of multiple cerebral lesions.

One of the following four hematomas originated in an aneurysm, and the other three are believed to have had such an origin.

Case 12.—A 50-year-old-man, admitted on December 3, 1942, had been unconscious for twenty-four hours. On December 11, 1942, he became drowsy and incoherent. On examination the patient was drowsy, aphasic, and apraxic. He had left papilledema, right hemiparesis, and right Babinski sign.

Diagnosis: Intracranial hemorrhage.

On December 13, 1943, bilateral temporal exploratory trephinements and left subtemporal decompression were done (Fig. 10). A temporal subarachnoid hemorrhage and a softened temporal lobe were found. A subcortical cyst was encountered from which 30 cc. of old purple blood was aspirated.

The patient improved in two weeks, then suffered a convulsion and died. Autopsy revealed extensive hemorrhage into the left temporal lobe extending into the lateral ventricle. There was a pea-sized aneurysm with an opening on its cerebral surface, on the middle cerebral artery, partly fixed in position by an older organized clot.

Case 13.—A 45-year-old-woman was admitted on January 21, 1942, with an attack of spontaneous subarachnoid hemorrhage. On January 25, 1942, she suffered severe occipital pain and emesis. Her blood pressure was 108/64. She was in a semi-stupor, with nuchal rigidity. The left corneal reflex was diminished; she had slight left ptosis, left homonymous hemianopsia, left lower facial paresis, and marked paresis of the left arm. Spinal fluid pressure was 290 mm. of bloody fluid. Her alertness fluctuated, but she did not improve.

Diagnosis: Bleeding right temporal aneurysm or neoplasm. On February 13, 1942 encephalography showed a right temporal mass. Right temporal craniotomy was done (Fig. 11). The gyri were widened and yellow. A subcortical cyst contained 60 cc. of old liquid blood and clots; the walls were shaggy. Recovery was uneventful and sustained.

Case 14.—A 51-year-old-woman had, on December 25, 1941, a sudden, severe headache, right frontal to occipital, which lasted seven days. On January 28, 1942, she had sudden nausea and projectile emesis; she fell and became unconscious. Next day, she had photophobia, mental dullness, poor memory, and mild aphasia. Her blood pressure was 114/62. She was drowsy, with incomplete motor aphasia. There was questionable papilledema, right hemiparesis, and Babiński. Spinal fluid pressure was 170 mm.; the fluid was slightly xanthochromic.

Diagnosis: Spontaneous subarachnoid hemorrhage, probably aneurysmal. On February 6, 1942, encephalography showed a left frontal mass. Left frontal craniotomy (Fig. 12) revealed an incompletely encapsulated subdural hematoma containing old liquid blood and 30 cc. of solid clot. The subarachnoid space was filled with a clot. She had an incomplete recovery, and then a relapse into coma. On February 11, 1942, the wound was reopened. A left frontal, 4-cm. cyst containing liquid blood and a clot was found. Recovery was gradual and complete.

Case 15.—A 36-year-old-man on October 30, 1941, following coitus, suffered sudden right hemiparesis and dilated right pupil. He improved for ten days, and then on November 25, 1941, again after coitus, became unconscious. On awakening, he was aphasic, with right hemiparesis. His blood pressure was 132/84. He was confused and uncooperative. The right pupil was dilated, and he had small hemorrhages around the optic discs, but no edema. The right side displayed mild hemiparesis, hyperreflexia, and Babinski sign.

Diagnosis: Aneurysm of circle of Willis, with recurrent bleeding. On December 15, 1941, encephalography showed a left frontal mass. Left frontal craniotomy (Fig. 13) revealed a xanthochromic cortex; the posterior end of the third frontal convolution was widened and softened. Sixty cc. of oily, old blood and clot were removed from the base of the frontal lobe. He recovered with residual hemiparesis.

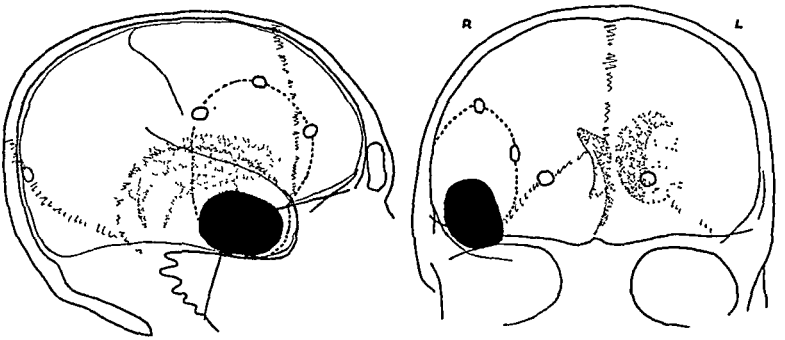


FIG. 4. Case 5—Right temporal hematoma associated with hypertension.

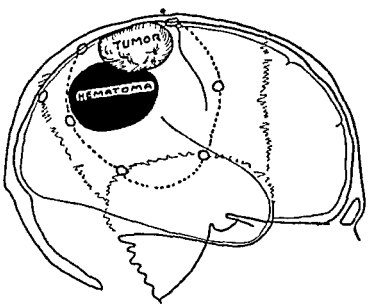


FIG. 5. Case 6—Right parietotemporal hematoma associated with right parietal parasagittal meningioma.

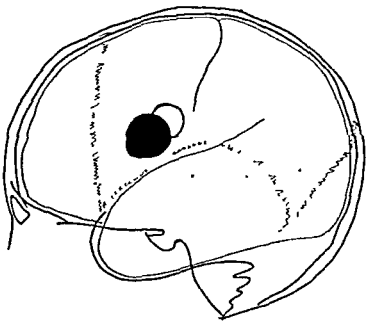


FIG. 6. Case 7—Postfrontal hematoma associated with subacute bacterial endocarditis.

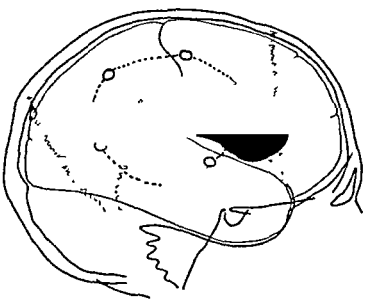


FIG. 7. Case 8—Right ventricular hematoma associated with metastatic tumor.

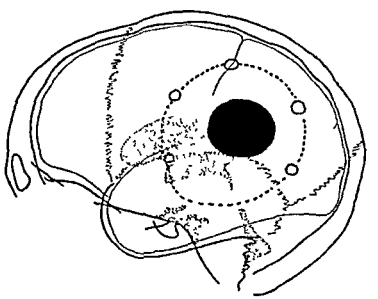


FIG. 8. Case 10—Left parietal hematoma associated with parietal astrocytoma.

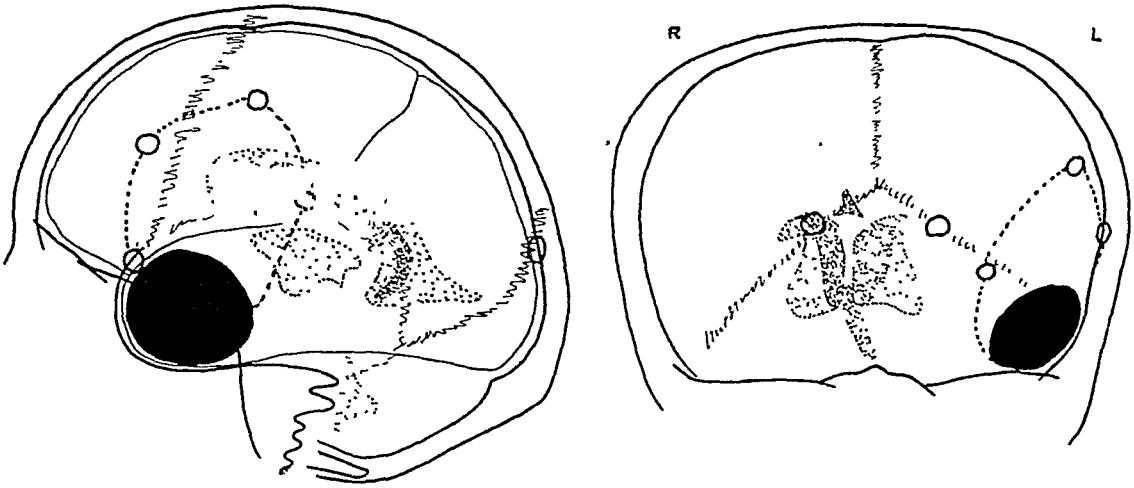


FIG. 9. Case 11—Left temporal hematoma associated with metastatic carcinoma.

The following is the only case in the series with a course suggesting "delayed post-traumatic hemorrhage."

Case 16.—A 54-year-old-man, on September 6, 1943, fell 18 feet. He was unconscious, with occipital laceration. Skull x-rays were normal, with pineal calcification in the midline. On September 13, 1943, he suffered headache, mild confusion, disorientation, and left hemiparesis. Two days later the pineal shadow was shifted 1 cm. to the left, and all symptoms progressed. His blood pressure was 130/85. He was drowsy, confused, and irritable, and had left hemiparesis.

Diagnosis: Right subdural hematoma. On September 24, 1943, right parietal exploratory trephinement was done. The subdural space was normal. Forty cc. of dark purple, thick blood was aspirated from a cyst 4 cm. from the surface. Lavage was done with normal saline solution and then with colloidal thorium dioxide suspension. Recovery was uneventful.

Roentgenographic Findings

In addition to two preoperative examinations that showed a pineal shift in the interval of a week, postoperative studies have been enlightening. The propensity of thorium dioxide suspensions for precipitating in the walls of a cavity provides a method for following the progress of a cyst after drainage. Thus Freeman[1] produced ventriculograms and Kahn[2] followed the progress of brain abscesses. Roentgenograms made immediately after drainage of the hematoma (Fig. 14) showed a cavity with irregular outlines, probably due to retained clot. The pineal shadow was midline. Eleven days later the cavity had rounded out, perhaps due to liquefaction of residual clot. The pineal shadow again was displaced to the right. One hundred and twenty-eight days later, the shadow was smaller and denser, as though by contraction of the walls, and the pineal shadow was midline. It is proposed to follow this to a stationary state by studies at six-month intervals.

Discussion

Previous reports have stressed particular types of hemorrhage amenable to surgery. This is the most efficient way of getting information on a single type, but for a comprehensive view of the problem, all types must be considered jointly; otherwise an unexpected, coexistent lesion may be missed. Thus, Meredith[3] and Craig and Lipscomb[4] emphasized that for the diagnosis, as well as for treatment, surgery is advisable in all cases of expanding intracranial lesions. Frugoni, Baker, and Adson[5] advised at least burr-hole exploration, even if a malignant tumor is suspected.

Cause.—(*a*) Trauma: Browder and Turney[6] reported 29 operations in 80 cases of intracerebral hematomas, 25 with skull fractures. Their paper is an excellent consideration of this phase of the problem. Cases with hematoma related to fracture have been excluded from this discussion.

(*b*) Delayed post-traumatic hemorrhage (Spätapoplexie): In 1891, Bollinger[7] presented his 4 cases of hemorrhage and softening in the brain following cranial trauma. Subsequently, many papers have been written on the subject, many treating conditions widely different from his cases, only one of which included gross cerebral

hemorrhage The modern concept of the lesion still is confused Some[8] require that the symptoms start within seven to ten days with gradual progression Others[9] consider an apoplectic onset most important Some writers require that no pre existing vascular disease be evident, while Wechsler[10] says that most of the cases have pre-existing vascular disease and trauma is only a precipitating factor Courville[8] found no definite pathologic basis for the syndrome and considers the hemorrhage due to pre existing vascular disease the trauma being incidental DeVeer and Browder,[11] however, found a possible anatomic basis for Spät-apoplexie At autopsy a tear was found in the intima and thrombosis in an artery adjacent to a branch vessel They speculated that had no thrombus occurred, an aneurysm might have developed with later hemorrhage Some[12] believe that hemorrhage following almost any trauma is due to the trauma Courville[8] states that an effective trauma is invariably followed by other evidence, such as contusion In this series, only Case 16 falls into this category Another, Case 6 also followed trauma, but was complicated by the presence of both a neoplasm and hypertension

(*c*) Association with vascular disease As would be expected the majority of these hematomas occurred in patients with vascular disease In the first 6 cases the hematomas were associated with hypertension or arteriosclerosis and the seventh with bacterial endocarditis Luther work[13 14] on this topic was concerned with selecting from the common apoplectics a group of patients who might recover after surgical removal of the clot Bagley[15] suggested as surgically favorable cases those with an acute onset but with gradual progress of the clinical picture and the development of signs of increased intracranial pressure In general these criteria still stand In addition to the common arteriosclerosis and hypertension, other vascular diseases such as eclampsia[16] and purpura[17] may be complicated by hematoma formation

In many so called 'spontaneous" cases, no active bleeding point can be found This is true especially with the lesions in the posterior temporal and occipital areas and since the blood pressure generally is not elevated Craig and Adson[18] believed these to have a venous origin

(*d*) Association with aneurysms It usually is supposed that when an aneurysm of a major cerebral vessel ruptures into the cerebral substance, the blood enters a ventricle with a fatal outcome Richardson and Hyland[19] found 22 percent of massive intracerebral hemorrhages encountered in routine autopsies due to ruptured aneurysms of the circle of Willis

Attempting to find and obliterate aneurysms

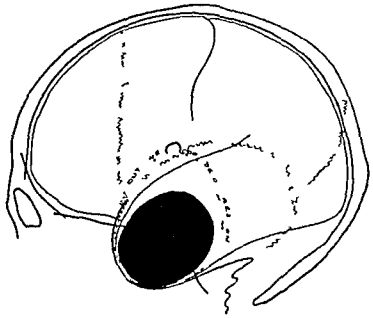


FIG 10 Case 12—Left temporal hematoma due to ruptured aneurysm of middle cerebral artery

of the circle of Willis I have operated upon 4 patients each having a hematoma in the frontal lobe Case 12 of this series was one similar, clinically to these, but the cyst was emptied The patient made good progress for twelve days, then died suddenly The hemorrhage was from an an eurysm of the middle cerebral artery Cases 13 14 and 15 presented almost identical clinical and surgical findings and the hematomas are believed to be of aneurysmal origin also These lesions are most common near the rostral part of the circle of Willis, in the frontal lobes[19 20] The clinical course starts with subarachnoid hemorrhage the acute effects of which may clear Signs then develop of an expanding cerebral lesion This may be confirmed by air studies[21] which have not been productive of mischief in my experience At operation one finds the subarachnoid space filled with clotted blood The hematoma is evacuated and the walls of the cavity usually are shaggy and stained with blood pigments In one of my unreported cases the aneurysm was present in the floor of the cavity The aneurysm usually is not visible and since one has little reason to explore for it no source of the hemorrhage is found If the aneurysm heals, as it often does in cases without proved hematoma formation the case is listed as 'spontaneous" just as one must so classify such cases of subarachnoid hemorrhage Statistical studies indicate that so called spontaneous subarachnoid hemorrhage must be considered to be due to aneurysm unless proved otherwise

(*e*) Association with neoplasms In 94 autopsy cases, Globus and Saperstein[22] found that hemorrhage into a brain tumor is not a determining factor in sudden death Hemorrhage may cause precipitation of symptoms in these patients, how-

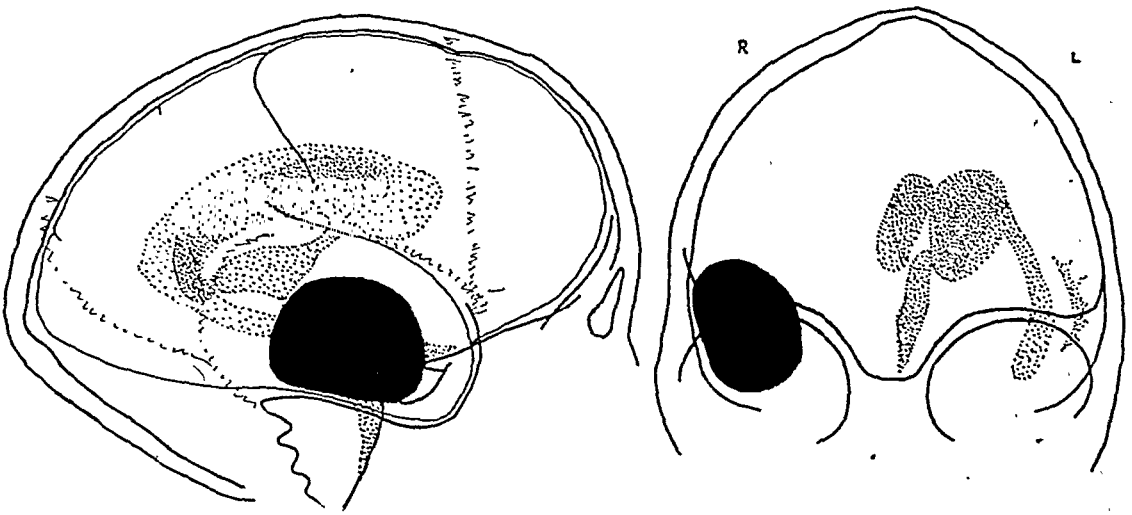


FIG. 11. Case 13—Right temporal hematoma due to ruptured aneurysm (?)

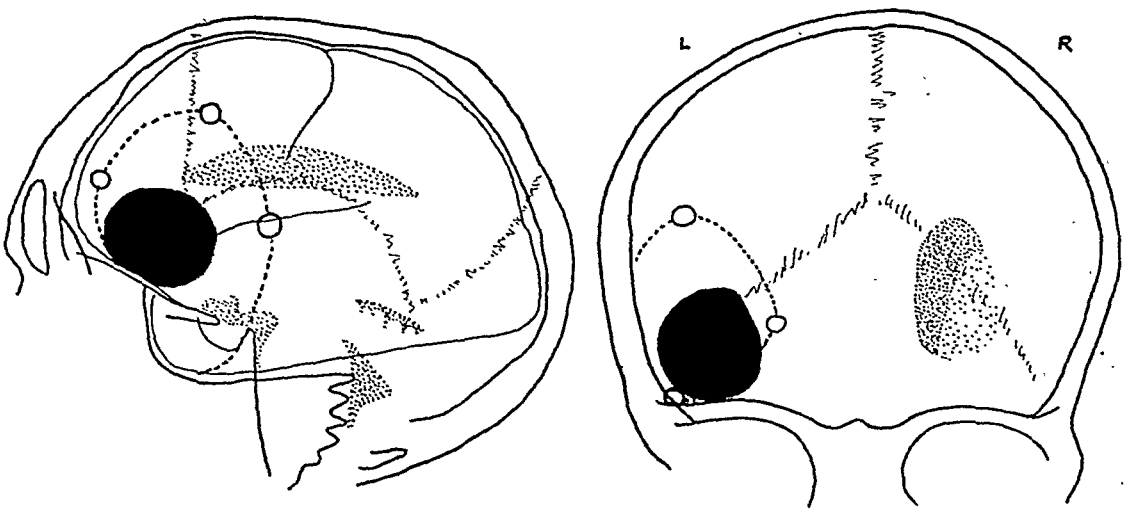


FIG. 12. Case 14—Left frontal hematoma due to ruptured aneurysm (?)

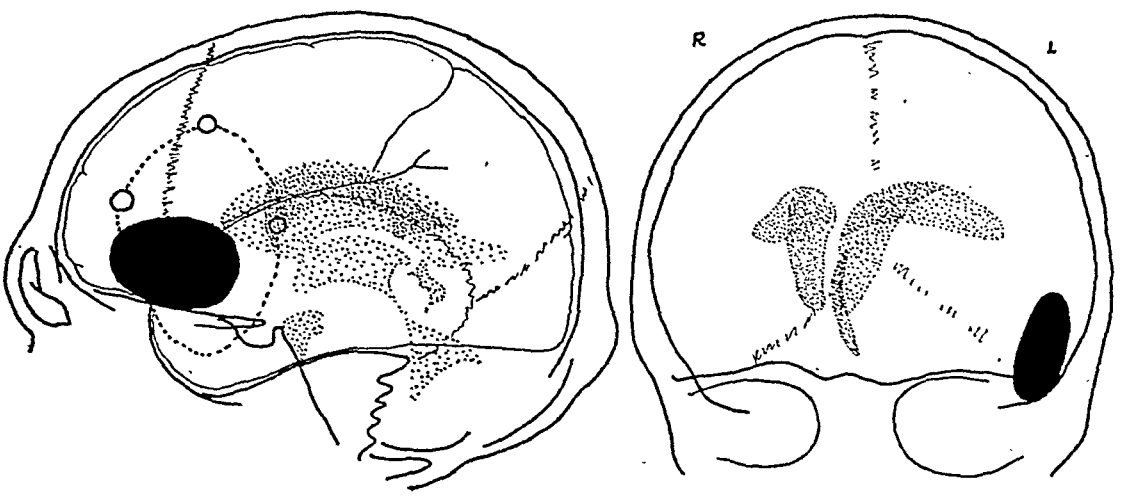


FIG. 13. Case 15—Left frontal hematoma due to ruptured aneurysm (?)

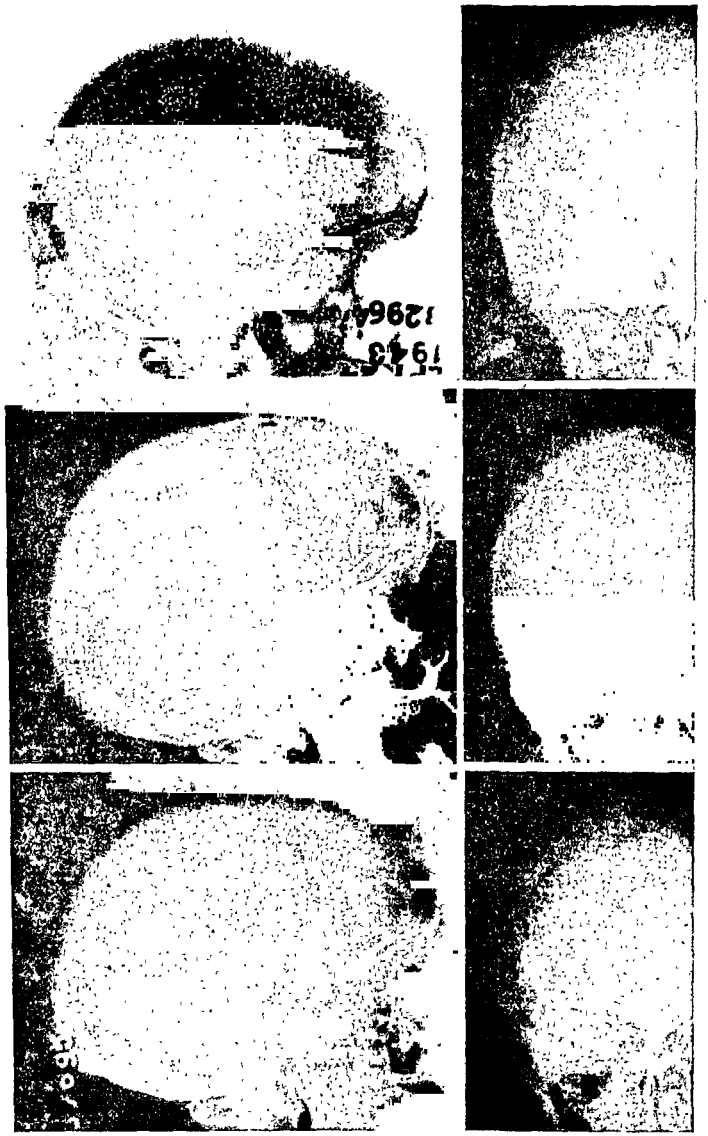


FIG. 14. Case 16—Right temperoparietal hematoma secondary to trauma. (Top): Immediately postoperative—cyst cavity outlined by thorotrast. (Middle): 11 days postoperative—cyst enlarged pineal displaced. (Lower): 128 days later—cyst smaller, pineal midline.

ever. In 14 subcortical hematomas, Wilkins found 4 due to tumor, 8 to trauma, and 2 spontaneous. Craig and Lipscomb[4] reported a case of ventricular hemorrhage due to a hemangioma on the medial wall of the ventricle. Meredith[3] reported another ventricular hemorrhage, the cause of which was not verified. Case 8, of ventricular hemorrhage, was associated with a ventricular wall metastasis. Hemorrhage into a tumor may give the first evidence of the existence of the lesion, and removal of the clot may be followed by gratifying recovery even when the tumor is not removable.

Location of the Lesion

In this series, the hemorrhage was located in the frontal lobe in 4 cases,[15,17,18,23] temporal in 5,[1,5,9,24,25] parietal in 1,[11] occipital in 3(Cases 7,8, 16), cerebellar in 2,[6,12] and in the lateral ventricle in 1.[4] Various writers have been impressed with an apparent predilection of these lesions for certain areas. Six of Pilcher's[26] 8 cases were posterior temporal or parietal. Browder and Turney's[6] traumatic hematomas were predominantly in the temporal and parietal areas. Courville[8] found the hematomas usually in the frontal and temporal areas after trauma. In most of Bagley's[15] favorable cases the hemorrhage was in the temporal lobe. Apparently, he used the subtemporal decompression as his approach to most of these lesions and this may have influenced the position of the verified hemorrhages. Craig and Adson's[18] cases predominated in the temporal and parietal areas and in discussion of their paper, Naffziger emphasized the posterior location of these lesions. Except for one in the cerebellum, all of Wilkins'[27] cases were in the temporal or parietal lobes. Meredith[3] was impressed with the paucity of cases in the cerebellum, but these have been reported by several others.[15,17,26,27] Possibly if the cause of the hemorrhage could be ascertained in all cases, this would be found to be the determining factor in the location of the lesion.

Age of the Patients

Although some writers have been impressed by the youth of the patients harboring these lesions, the ages in this series ranged from 13 to 73 years, an average of 41.8 years.

Mechanism of the Hemorrhage

The effect of the ceaseless force of the arterial blood pressure upon an arterial wall weakened by arteriosclerosis, aneurysm, etc., can be imagined. These factors are not necessarily at play in all cases. After autopsy study of cases of spontaneous cerebral hemorrhage, Globus[25] concluded that the hemorrhage occurs into areas of softening produced by earlier vascular occlusions. He reached a similar conclusion[20] in the case of aneurysms: the altered blood flow caused by the aneurysm produces the prehemorrhagic area of softening. Richardson and Hyland,[19] however, found that the aneurysm usually was partly imbedded in the adjacent cortex. With rupture the hemorrhage lacerated the white matter, producing intracerebral hematomas of varying size. Bagley[15] reported a case of spontaneous subarachnoid hemorrhage that cleared, the patient dying later of an unrelated lesion. Sections showed a healed tear extending completely through the sclerotic internal carotid artery. This indicated that a patient may survive a direct tear through a major intracranial vessel, and suggests that the antecedent softening is not necessary in the development of the nonfatal lesions under discussion here. Case 13 is an example of an aneurysmal rupture producing a large cavity in the adjacent brain. This was not a terminal event and the patient could have survived it, had the vascular lesion healed.

Fate of the Hematoma

In the traumatic cases, Browder and Turney[6] found clotted blood in the patients dying a few hours after injury. Twelve to fifteen hours later the clot was "syrupy" and suitable for aspiration. I was unable to reach any conclusion as to the type of clot to be found at any particular stage of these lesions. When such a clot is aspirated, old fluid blood can be obtained from almost all of them and when the cyst is opened, practically all of them contain solid clot, at any time after the hemorrhage. Probably these clots undergo the changes described by Gardner[23] and by Zollinger and Gross[28] in cases of subdural hematoma: The blood partly coagulates, then undergoes gradual liquefaction. This is suggested by the course of events in Case 16. It is doubtful if aspiration alone empties any of these lesions. If the patient grows worse, the lesion should be reaspirated,[15] or opened directly. In Case 1, of two months' duration, 30 cc. of clear, golden-yellow fluid was aspirated from the hematoma which, when opened, contained 60 cc. of black clot that had separated into polypoid masses. The capsule was firmer than the surrounding brain, suggesting tissue organization. In "younger" lesions the walls are more likely to be soft and shaggy and the contents of plum-colored, oily-appearing liquid and softer, gelatinous clotted blood. The lesion, if not fatal, or not drained, may persist for a long time. The cavity[24] gradually becomes smaller and, as necrotic tissue is absorbed, its irregular margins become smooth. Yellowish-orange coloration, due to the presence of blood pigments, may re-

main for months, or years, in the wall. As in the case of abscesses, encapsulation,[13 26] scar formation, and even calcification may occur. Fluid-filled cysts may persist for years after the hemorrhage, and in the walls tough scars may develop.[29] Epilepsy has developed both in operated cases and in those surviving without operation.

Conclusions

Localized cerebral hematomas may occur in any part of the brain and have a variety of causes. They are most frequent in patients with cerebral vascular disease, as are the fatal hemorrhages, but they may occur without obvious cause. Evacuation of the hematoma is attended by a high percentage of recovery. Surgery should be considered in cases with apoplectic or gradual onset, with progression of signs and the development of evidence of increased intracranial pressure. Encephalography or ventriculography should be used if localization is not evident. If the patient's condition is poor, trephine aspiration of the clot usually will prove beneficial. Flushing out the cavity with colloidal thorium dioxide suspension will make possible later roentgenographic check upon the progress of the lesion. Aspiration does not eliminate the solid clots that are present in most hematomas, if symptoms return, the clot should be evacuated completely.

Cases with spontaneous subarachnoid hemorrhage that develop increasing intracranial pressure and signs of localization to the frontal or temporal lobes are likely to have hematomas of aneurysmal origin amenable to surgical treatment. While some of these may later rupture fatally, others heal, especially if long bed rest is insisted upon. In cases that recover without drainage, intracerebral hematomas may persist for years as cysts with organized walls. These may even calcify and may act as foci for convulsive seizures.

Summary

Sixteen cases are presented of gross intracerebral hematomas that were drained, with 14 recoveries and 2 deaths. One death was due to massive pulmonary atelectasis, and the other to a fatal recurrent hemorrhage from a ruptured aneurysm of a major cerebral vessel. Seven of the cases were associated with cerebral arterial disease and 5 with intracerebral neoplasms (3 metastatic, 1 meningioma, and 1 astrocytoma). One case was proved (and 3 were suspected) to be due to ruptured aneurysms of the major blood vessels. One case was of delayed post-traumatic intracerebral hemorrhage.

The locations, causes, and mechanism of the hemorrhages and the fate of the lesions are discussed.

Acknowledgment—Cases 4 and 6 are included in this report through the courtesy of my associate, Maj. William F. Beswick, now with the Armed Forces.

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Discussion

Dr. Leo M. Davidoff, *New York City*—Dr. Hamby is to be congratulated upon the accumulation of so impressive a series of what is undoubtedly a relatively rare neurosurgical condition, namely, gross intracerebral hematoma. He is further to be congratulated upon his ability either to verify, or at least to suspect, the cause of the hemorrhage in practically every case. Exclusive of cases of hemorrhage occurring into pre-existing tumors, of which I have not kept a separate record, my experience with this lesion consists of 9 verified cases at operation. Two of these were in patients with hypertension and arteriosclerosis, and I shall not dwell on these. One case was in a patient in whom an aneurysm was suspected but could not be verified. Although he died following operation, unfortunately no postmortem examination was obtainable. One patient was a woman of 48 with pre-existing hypertension who, ten days before operation, fell

down three or four steps, developed progressive signs of cerebral involvement, was suspected of a subdural hematoma, and proved to have an intracerebral hematoma. Plain x-rays of the skull showed a definite linear fracture, indicating a traumatic precipitating cause in a patient potentially susceptible to hemorrhage because of her hypertension. One of my patients was a 30-year-old garage mechanic who struck his head against the underside of a car while standing in a pit beneath it. Ten months later he was operated upon for an intracerebral mass. It proved to be a hematoma located in the region of the corpus callosum, and at the bottom of the clot a mass about 1.5 cm. in diameter was found, more solid than the clot itself, was removed without any difficulty, and on examination proved to be a knot of veins obviously representing a venous angiomacongenital in nature, with thrombotic vessels. It was our conclusion that this was a case in which the hemorrhage was precipitated by the trauma in an individual susceptible to bleeding because of the venous tumor. Still another most unusual case was in a 37-year-old-woman with no evidence of hypertension who had a spontaneous subarachnoid hemorrhage and was suspected of a leaking aneurysm. She showed at the time of her hospitalization a positive left Babinski sign. She recovered completely, however, except for the Babinski sign, and was discharged home. Six months later she began to complain of headaches, was brought back into the hospital and showed early papilledema and slight hemiparesis of her left leg. Electroencephalogram showed a localized lesion in the right superior frontal region. Exploration was made in this region, and a brownish discoloration and flattening of the convolutions in the superior, posterior frontal area was found, which led to a diagnosis of intracerebral hemorrhage. The contents of the hematoma were exactly like what Dr. Hamby has described. There was one unusual feature about this case, however, and that was that the lining of the cavity was a membrane colored green, orange, brown, and yellow, and looking exactly like the membrane that one sees in a subdural hematoma. It could easily be removed and left behind a smooth cavity of white matter. As the membrane was being separated, it led to the medial aspect of the brain, where we found that it passed through the brain substance and was attached to the inferior margin of the falx, where a thrombosed vein was found included in the pedicle. Our conclusion in this case was that we were actually dealing with a subdural hematoma imbedded in the brain tissue. There was no history of trauma.

Our final group of cases consisted of three children, two boys, one of 14 and one of 17, and one girl, also of 14 years of age. The symptoms in these children began spontaneously. In the 17-year-old boy there was a rapid development of only two days, leading to an emergency operation. In the girl, symptoms developed gradually over a period of seven months, and in the other boy in about three months. In all instances, the hemorrhage was located in the posterior and superior frontal region, two left and one right. In none of the cases was there any blood in the cerebrospinal fluid, no connection with the ventricles, and no evidence of aneurysm. In none of the cases was a definite history of trauma obtained, although in children of that age unrecognized or unreported trauma, for fear of bringing down the wrath of the parents, is possible.

The cause of these cases remains unknown. If I were forced to speculate, I would think that we are dealing here with venous angiomas that have ruptured, rather than with small arterial aneurysms.

STANDARD UNIT ADOPTED FOR PENICILLIN

The Conference for the Standardization of Penicillin recently held in London under the auspices of the Health Section of the League of Nations decided upon a pure crystalline preparation of a sodium salt of penicillin G as the International Standard, and defined the International Unit as the penicillin activity contained in 0.6 micrograms of the International Standard.

Agreements of this kind were first reached for antitoxins, when in 1921, the Health Committee of the League took up the question of measuring the activity of a number of modern biologic remedies in order to obtain international uniformity by agreements to use a common set of standards and units. Standards for vitamins, hormones, insulin, digitalis, arsphenamine (powder used for protozoan infections) were subsequently decided upon, with the result that today the activity of over thirty biologic products is being assessed in terms of international standards. They are distributed throughout the world for the League by the National Institute for Medical Research, London, and the State Serum Institute, Copenhagen, even in war times.

The Penicillin Conference, to which Sir Alexander Fleming, father of the miraculous drug, came, as well as three delegates each from the United States, and Great Britain, and one each from Australia, Canada, and France, also adopted a Working Standard. This Working Standard, for distribution to laboratory workers, consists of a calcium salt of penicillin, 2.7 micrograms of which were accepted as containing one International Unit of penicillin. Both the International and the Working Standards are to be deposited with the National Institute for Medical Research in London.—*Conn. State M. J., Jan., 1945*

PRACTICAL EXPERIENCE WITH CONGENITAL HEART DISEASE

HYMAN GREEN, M.D., Boston, Massachusetts

(Associate physician, Children's Hospital; consulting pediatrician, Beth Israel Hospital, Boston)

SUCCESSFUL ligation of a patent ductus arteriosus in 1939[1] has aroused renewed interest in congenital heart disease. As a result, more and more cases come to us for diagnosis and possible operation. One does not want to operate unnecessarily, and under an incorrect diagnosis, so the criteria for operation must be present before it is undertaken. Like sympathectomy for hypertension and complete thyroidectomy for congestive heart failure, the ligation or section of a ductus arteriosus can easily fall into disfavor if its importance is not properly evaluated.

Congenital heart disease was, until recently, an insignificant part of the teaching of cardiology in most medical schools and pediatric clinics. As a general rule, the diagnosis submitted by a practicing physician referring a case of congenital heart disease demonstrates his meager knowledge of anatomic cardiac diagnosis, but he persists in offering one. For example, he may write, "Please admit this case of mitral regurgitation to your clinic and report on it. I should be greatly interested to know the condition of the foramen ovale." When we looked up the incidence of congenital heart disease as a cause of infant mortality in Boston, it was found that the diagnosis on a death certificate meant nothing. One doctor certified the death of every infant who died of cyanosis as caused by disease of the foramen ovale.

The purpose of this paper is to present types of congenital heart disease which can be diagnosed, together with pertinent data, in an attempt to dissuade pediatricians from calling every case of congenital heart disease septal defect or patent ductus arteriosus. It is extremely difficult, in the first six months, to make a correct anatomic diagnosis of congenital heart disease, by x-ray or by any other physical means. Most infants die in the first few months of conditions incompatible with life such as aortic atresia, persistent truncus arteriosus, transposition of the great vessels, a bilocular or trilocular heart, ectopia cordis, and other combinations or defects. It is nevertheless important to have an x-ray picture of an infant with dyspnea or cyanosis, with or without a murmur, since the cause may be a diaphragmatic hernia, a congenital air cyst, a lung anomaly, an absent pericardium, or pulmonary hemorrhage. A case in point is an infant twenty-four hours old who had intermittent cyanosis. When he was held up he was not so blue as when he was lying down. The heart was percussed on the right side. X-ray examination showed part of the intestines in the left side of the chest, pushing the heart to the right. There was a diaphragmatic hernia.

Another important factor in early life, from the point of view of diagnosis, is an enlarged thymus gland. Twenty years ago this was considered the cause of convulsions or cyanosis in infants. As a result, such patients were subjected to x-ray treatments for these symptoms. The thymus gland is large at birth and does alter the cardiac contour and outline. Its size may be altered by x-ray treatments, but these have no effect on the underlying heart condition. It is still the custom in many parts of the country to treat enlarged thymus glands regardless of the symptoms or underlying condition. It is my belief, however, that the thymus gland is rarely the cause of death in infancy, so the treatment for its enlargement is unnecessary.

Another reason for the difficulty of correct diagnosis in the first six months to one year of life is that there are changes in pressure in the heart chambers caused by postnatal adjustments of the circulation. Hence it is not uncommon to find that murmurs do not appear until later. In the second year of life the thymus becomes involuted and the thorax is a little longer, and one is then able to diagnose certain defects more accurately. At least, from this time on, serial x-ray films taken at intervals of six months assume a characteristic outline with which one becomes familiar. It is the duty of the pediatrician to familiarize himself with the x-ray pictures in cases of heart disease by studying their outlines carefully and not accepting a written report from a roentgenologist at its face value. Two decades ago a correct anatomic diagnosis of a congenital heart lesion was more or less a matter of chance. Now, at least some defects are easier to diagnose. A survey of the autopsies during the last ten years in a large general hospital in the East showed that 50 per cent of the cases of congenital heart disease were diagnosed correctly as to anatomic lesions, and this percentage was considered satisfactory by one of the leading cardiologists in the country.[2] Now, besides a careful physical examination and

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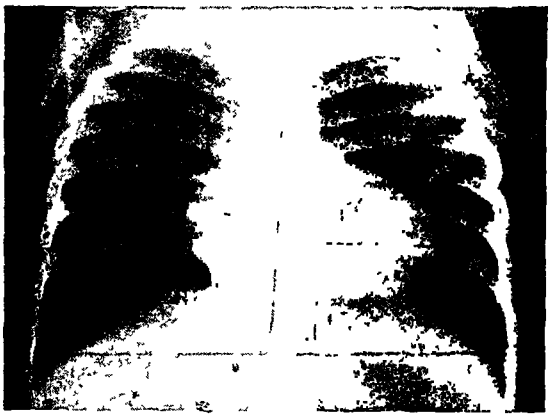


FIG. 1. Prominence of right auricle and right ventricle because of marked enlargement. No shadow in region of pulmonary conus, so that right ventricle is shaped like a sheep's nose.

history, there are aids, laboratory and otherwise, to a correct anatomic diagnosis. These aids are not necessary in all cases but may be used in more difficult ones. They include the circulation time, the blood volume, the venous pressure, the phonocardiogram, x-ray examination, with and without diodrast, the electrocardiogram, puncture of the femoral arteries to obtain arterial blood for oxygen determination, palpation of the femoral arteries, the blood pressure of the arms and legs, the sedimentation rate, a complete blood examination, a vital-capacity determination, and a metabolism test. It is not possible to discuss all these aids to diagnosis here, and they are not available to pediatricians in general practice, but in severe cases which are difficult to diagnose these data should be obtained. According to a recent survey made by Levy *et al.*,[3] of all the congenital heart cases found in Army inductees, cases of interventricular septum were the most frequent. Next in frequency was patent ductus arteriosus, and next coarctation of the aorta. This is not the order of frequency in a children's clinic devoted to congenital heart disease, for the order found there is first, defect of the interventricular septum, next, patent ductus arteriosus, the tetralogy of Fallot, then defect of the interauricular septum, then a few cases of coarctation of the aorta, and last, the tetralogy of Eisenmenger. These conditions will now be discussed.

Defect of the Interventricular Septum.—An infant or older child without cyanosis, usually without cardiac enlargement, and with a loud, rough, blowing, systolic murmur, heard most usually over the body of the heart or over the lower end of the sternum, can be said to have a defect of the interventricular septum. There is nothing particularly significant in the cardiac contour as shown by x-ray. The electrocardiogram is usually normal. This diagnosis, then, is not much of a problem so far as the pediatrician is concerned.

Patent Ductus Arteriosus.—An outstanding diagnostic feature of this anomaly is a to-and-fro murmur at the base of the heart in the second left interspace, with a marked thrill. The murmur has been described as resembling the noise of a subway or of a train in a tunnel. It is systolic and diastolic in character. It is often heard only at the base. In some of these cases, if one listened only at the apex, nothing would be heard. For this reason it has been our policy always to listen at the base for murmurs of congenital heart disease. If the defect is large, there may be peripheral signs of aortic insufficiency. The diastolic pressure is usually low, there is no cyanosis, the vital capacity is unchanged, and the electrocardiogram usually shows no axis deviation. If there is right axis deviation, one must exclude the presence of some other congenital lesions. Fluoroscopically, there is a so-called "hilar dance." X-ray examination shows the pulmonary conus to be prominent, and there may be some degree of dilatation of the left auricle and enlargement of the left ventricle. The phonocardiogram indicates a nearly continuous murmur which reaches maximum intensity immediately before and after the second sound.

The question is often asked how soon these cases should be operated on. The answer is that they cannot be operated on before the diagnosis is made, and this is rarely done before one year of age. In our clinic, 70 patients have been operated on since 1939, the youngest of them being eleven months of age. There were three surgical deaths.[4] Following operation the diastolic pressure increases immediately and the pulse rate slows as a concomitant of decrease in cardiac output. The indications for operation[5] are a delay in growth and development, a large arteriovenous shunt producing signs of an aortic regurgitation, and subacute bacterial endocarditis. Naturally, section of the ductus is preferable to ligation. Bacterial endocarditis may be treated with chemotherapy for a few weeks. If there is then no improvement, surgery is indicated.

Tetralogy of Fallot (Fig. 1).—This defect is primarily different from the other two in that these patients have cyanosis. It is not unusual in our clinic to find in one afternoon 4 to 5 cases of cyanosis in varying degree in children of all ages. These patients have dyspnea, cyanosis, clubbing, and a heart murmur which is not particularly characteristic. Hence, we proceed to x-ray



FIG. 2. Low-power view of a postmortem dissociated tooth displaying marked engorgement of the capillaries in the dental pulp.

examination, which we believe to be pathognomonic. It shows a prominence of the right auricle and right ventricle due to marked enlargement. There is no shadow in the region of the pulmonary conus, so that the right ventricle is shaped like a sheep's nose. The electrocardiogram shows preponderance of the right ventricle. The red cell count is usually from 5,000,000 to 9,000,000.

In analyzing the cases which came to autopsy in our hospital, we discovered that four other defects were found in the hearts of these children besides the four described by Fallot, namely, pulmonary stenosis, enlargement of the right ventricle, defect of the interventricular septum, and dextroposition of the aorta. We also found an enlarged aorta to make up for the small pulmonary valve, an enlarged aortic valve because of the fact that blood from both ventricles was flowing through the aorta, a hypoplastic pulmonary artery, since less blood was flowing through this channel, and an enlarged right auricle caused by increased pressure of blood in the right ventricle. This we have described as an octology (Emerson

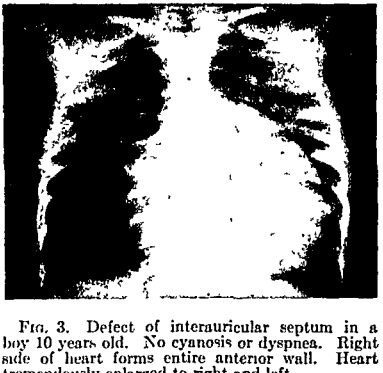


FIG. 3. Defect of interauricular septum in a boy 10 years old. No cyanosis or dyspnea. Right side of heart forms entire anterior wall. Heart tremendously enlarged to right and left.

and Green).[6] It is our belief that diodrast is not necessary to make the diagnosis of this condition.

It is interesting that pediatricians who examine patients with congenital heart disease with *cyanosis are prone to give very poor prognoses.* Some predict that the infant will never grow up, and still others that he will suddenly drop dead. No one can give an accurate prognosis in cases of cyanosis, but the more correct the diagnosis, the better will be the judgment used in making a prognosis. Feigin and Rosenthal[7] recently reported two cases of tetralogy of Fallot in patients 53 and 43 years of age, respectively. White's case was a famous musician with this condition who lived to his sixtieth year.[8]

The clinical manifestations in this group are slowness in growth and development, a tendency to underweight, onset of cyanosis from birth to five months of age, onset of dyspnea from one and one half to ten months of age, a tendency to squat when the walking age is reached (possibly a means of adjusting the circulation and obtaining relief from pain), toothache, frequently noticed in these cases, caused by engorgement of capillaries in the dental pulp (Fig. 2), and finally, thromboses as a result of slowing of the circulation. These last may be either venous or arterial. They have occurred in the cerebrum, aorta, and subclavian veins.

Defect of the Interauricular Septum (Fig. 3).— In this condition, there is usually no cyanosis. The heart is tremendously enlarged to the right and left. There is usually a prominence of the left precordium. In spite of the cardiac hypertrophy it is remarkable that these children do

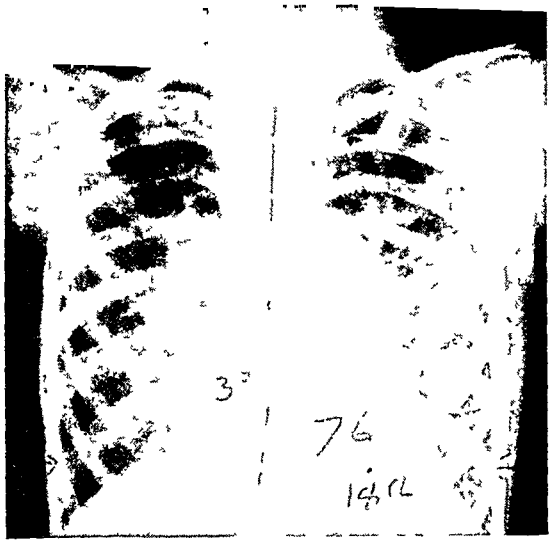


FIG. 4. Tetralogy of Eisenmenger. Pulmonary artery shows bulge in region of conus, as contrasted with an absence of shadow in tetralogy of Fallot

not have much dyspnea. The interauricular defect may be in the upper part of the septum, when it is called persistence of the ostium secundum, or in the lower part, when it is called persistence of the ostium primum. Abbott has described persistence of the ostium primum as occurring in cases of mongolism. However, we have found it in perfectly normal children who have grown up and carried on in high school. In these cases, the right side of the heart forms the entire anterior wall, the pulmonary artery is large, and the aorta is usually below the normal average.[9] Valvular lesions with this condition affect the mitral orifice. All the branches of the pulmonary artery are enlarged. The aortic knob is almost entirely missing. The diaphragm is in a low position, because of simple weight depression.

Coarctation of the Aorta.—A narrowing of the aorta at a point distal to the origin of the left subclavian artery constitutes coarctation of the aorta. It is of varying degrees. If it is pronounced, collateral circulation and widened and tortuous intercostal arteries constitute the picture. The heart is usually normal in size, with some hypertrophy of the left ventricle. As a result of the tortuous intercostal arteries erosion of the ribs takes place. The youngest patient reported by Roesler was six years of age. This is not a common condition in childhood. Up to 1942, 47 cases of the adult type were reported diagnosed during life in children below the age of 15 years.[10] The x-ray picture is not characteristic. It usually shows the absence of the aortic

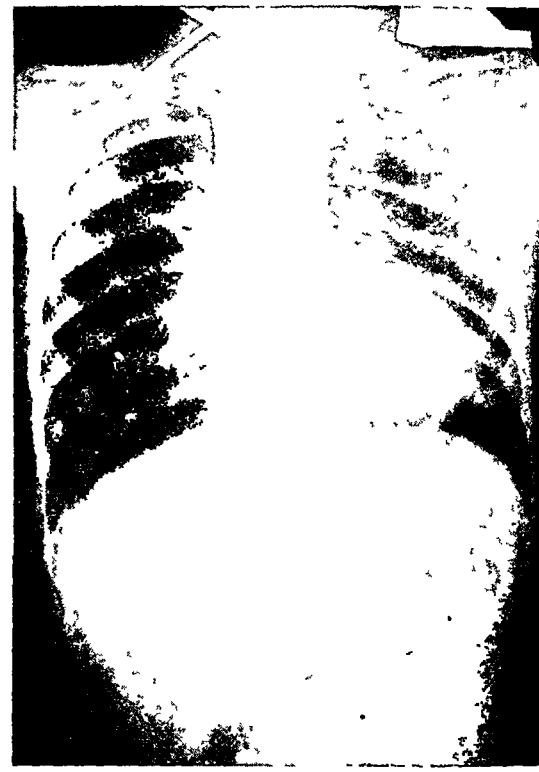


FIG. 5. Diodrast injection in a 7-year-old girl with tetralogy of Fallot, showing inferior vena cava and portal circulation. This child had a right hemiplegia.

knob in the adult, but as this aortic shadow in early life is usually absent or inconspicuous, this sign is not reliable in youth. The blood pressure of the arms and legs gives a clue to this condition, since it is generally low or absent in the legs and higher in the arms. Normally, the reverse is true. Hence it is our practice to palpate routinely for pulsations in the femoral arteries. If these are absent the blood pressures are taken as described. Injections of diodrast demonstrated the collateral circulation in the vessels of the neck in one of our cases. Experimental surgery on animals has been attempted to correct this condition.[11]

Tetralogy of Eisenmenger (Fig. 4).—This condition was described ten years later than the tetralogy of Fallot. Clinically the differences between the two are relatively less cyanosis and clubbing in the Eisenmenger type, hoarseness in the Eisenmenger type, but not in the Fallot, pulmonic insufficiency with a diastolic murmur in the Eisenmenger type, a contrast in the accentuation of the pulmonary conus as shown by x-ray and by percussion, and possibly a difference of transmission of systolic murmurs.[12] The x-ray picture is characteristic, since the pulmonary

artery in the Eisenmenger type shows a bulge in the region of the conus, as contrasted with an absence of shadow in the tetralogy of Fallot There is also preponderance of the right ventricle by the electrocardiogram. In the cases reported, patients have lived for thirty-two, thirty-three, twenty, sixty, ten, thirty-one, and thirty-two years, respectively

Use of Diodrast (Fig. 5)

In the last few years, injection of 70 per cent diodrast has been used by workers in this field We did considerable work with this before the war, but have since used it sparingly, because we have had insufficient help There is no question that some congenital heart lesions can be clearly visualized by the use of diodrast However, it must be carefully used and only by those who have had adequate experience with it Sussman[13] and his coworkers have found it useful in the diagnosis of pulmonary lesions, dextrocardia, and coarctation of the aorta We have used it in the cases difficult to diagnose and in cases of possible diaphragmatic hernia producing shadows which cannot be distinguished from the heart itself

Conclusions

From the foregoing the following conclusions may be drawn The more correct the anatomic diagnosis, the more careful and accurate will be the prognosis Murmurs do not necessarily imply the presence of patent ductus arteriosus The proper anatomic diagnosis of congenital heart disease can be made by coordinating and correlating the findings by x-ray and electrocardiogram, the clinician's findings, and frequent visits to the pathologic autopsy table Diodrast is a valuable aid if used properly and in experienced hands Last, the hope for a longer life for these children lies in surgery and chemotherapy.

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FOUR U S DOCTORS TEST SLEEPING SICKNESS CURE

Para arsenosophenylbutyric acid is a long name, but it gives hope of a short cure for the scourge of Africa, sleeping sickness

The new drug, on which a report appeared in *Science*, an official journal of American scientists, will be "very important" commercially in Africa if it is as efficacious in the treatment of livestock as current results indicate, officials of the United States Public Health Service said at Baltimore

[illegible]

it for wide scale experiments in cooperation with the Sleeping Sickness Services of the Gold Coast, Nigeria, the Belgian Congo, and the British forces in West Africa

More than 200 human patients were treated with seeming succe[illegible]
that the stud[illegible]
one thousand
are planned for Northern Rhodesia, French West Africa, French Equatorial Africa, and Sierra Leone The wide geographic distribution of the cases treated assured the inclusion of a variety of strains of the trypanosomes, the sickness-causing organism carried by the tsetse fly

African sleeping sickness makes large areas of the continent uninhabitable If the new treatment is a cure—and the experimenters will not say it is until they have had a year to observe the apparent cures—it will have the advantage of curing in two weeks or less a disease that formerly required three or four months of laborious treatment This would facilitate mass treatments

The compound holds promise thus far only in cases in which treatment is applied early When the brain and central nervous system have become affected there is much less hope of lasting good results Results indicate that the drug may not be effective against some forms of trypanosomiasis appearing in animals Most of the humans who received experimental
members of various
menters said that
among other races

[illegible]

but the Health Service's researches have not yet extended there —*N Y Herald Tribune, Jan 19, 1945*

FACTORS CONTRIBUTING TO THE FAILURES IN BILIARY-TRACT SURGERY

ROBERT P. DOBBIE, M.D., Buffalo, New York

I WILL discuss briefly certain phases of the management of benign biliary-tract disease, all of which are well known but many of which are often ignored or forgotten. The internist is usually the first to be consulted by the patient suffering from this common and serious disease, so upon him must rest the primary responsibility for diagnosis and cure.

At the present time, the only satisfactory treatment of calculus biliary-tract disease is surgery, and therefore, the operating surgeon is responsible for his share of the treatment and end results.

Biliary-tract disease comprises, for the most part, biliary-tract infection, associated in most instances with stones and the eventual complications of both. These complications are commonly stated to be acute cholecystitis with or without stones; cystic duct obstruction with hydrops or empyema of the gallbladder and the complications thereof; common duct stone with the varying degrees of associated cholangitis, hepatitis, impaired liver function, and eventual biliary cirrhosis; acute and chronic pancreatitis; and malignancy of the gallbladder and ducts.

It is well recognized that the morbidity and mortality of biliary-tract disease is directly dependent upon these complications, and it should be quite apparent that the earlier the disease is treated surgically in anticipation of and in prevention of these complications, the more satisfactory the results will be. One who sees these cases in any number, whether he be internist or surgeon, cannot help but be impressed with the fact that indifference or delay in treatment often causes regret and results in many undesirable and serious sequelae.

The failures in biliary-tract surgery are death, operative or postoperative complications preventing cure, or the persistence or recurrence of symptoms or ill health. Few, if any, will deny the gratifying results obtained by surgery in the great majority of treated cases of calculus biliary-tract disease, and though there is considerable room for improvement, great strides have been made in the past decade, and results are becoming progressively more satisfactory as regards both morbidity and mortality. These results are dependent upon the accuracy of diagnosis; the promptness of surgical treatment; the skill of the surgeon; and the adequacy of the surgery performed.

Read at the Annual Meeting of the Medical Society of the State of New York, New York City, May 11, 1944.

The factors contributing to the failures in biliary-tract surgery in the past, and at present, are perhaps well listed as follows:

1. Inaccurate diagnosis and the failure to recognize or heed the early signs and symptoms of the disease and its early complications
2. Delayed surgical treatment, due in most part to:
   (*a*) Lack of appreciation of the advantages of early surgery
   (*b*) Failure to appreciate the relative safety of early surgery
   (*c*) Indifference or lack of cooperation on the part of the patient
3. Inadequate surgical treatment, the result of:
   (*a*) Poor surgical judgment
   (*b*) Inadequate surgery which is avoidable
   (*c*) Inadequate surgery which is unavoidable
4. Postcholecystectomy syndrome due to dyskinesia of sphincter mechanism

It is the author's opinion that most of the failures experienced following surgery are directly attributable to one or more of the causes listed, and for this reason a few brief but pertinent comments pertaining to each seem indicated.

Inaccurate Diagnosis and Failure to Recognize Early Signs, Symptoms, and Complications

Experience shows that from the clinical symptoms presented, one cannot consistently or accurately estimate and appraise, preoperatively, the nature and degree of pathology present. Real biliary colic is often absent or at least not manifest in the history of some individuals who are harboring stones in the gallbladder, or even in the ducts.

Contrariwise, typical and repeated attacks of colic may occur in those displaying little or no other evidence of stones or chronic biliary tract disease, and may in fact be due to disease outside the biliary tract. On occasions, at operation or autopsy, we have been surprised to observe varying degrees of pathology in the biliary tract which were never intimated in the history or clinical findings. Also, serious coincidental or associated lesions never suspected are at times uncovered, to the embarrassment of the clinician.

It is quite true that such instances, and many others which could be mentioned, are the exception rather than the rule, but they suffice to emphasize the importance of accurate diagnosis and to demonstrate that the history alone, although extremely important, is far from infallible and not as reliable as has been so universally taught in the past

If we are to determine the presence of early biliary tract disease, we must avail ourselves of additional existing aids to augment the history, in an effort to substantiate or disprove our suspicions relative to the presence of this disease Of these aids, the cholecystogram is outstanding and offers us the most accurate method available for diagnosing early gallbladder pathology. Such studies, however, attain this distinction only when employed with most meticulous care and under the supervision of a thoroughly capable and experienced roentgenologist The various methods of technic in carrying out the procedure, though important, have no place in this presentation, but it is important that we realize what aid we can expect and the degree of accuracy which is now obtainable

It is true that not more than 30-35 per cent of gallstones will be demonstrated on the plain film, because only this percentage of stones contain calcium

Only when demonstrated is the diagnosis positive, and the report of no demonstrable stone shadows on such a plain film is, of course, of no significance

On the other hand, the information obtained from cholecystography is impressive and accurate to an unbelievable degree, approximating that shown in the following listed types of radiographic reports [1]

1 Nonfunctioning gallbladder or nonvisualization As a criterion of existing gallbladder pathology, the diagnosis should be correct in 90-95 per cent of cases studied with dye

2 Poorly-functioning or faint visualization Gallbladder pathology will be demonstrated in 88-90 per cent of those cases so reported. It is advisable to add, however, that such a report of radiographic interpretation is quite infrequent and reserved for only the occasional borderline case

3 Normally functioning or good visualization· This radiographic diagnosis will be accurate in 80–85 per cent of those cases proved at operation Such statistics, of necessity, are obtained from a series of individuals presenting typical clinical symptoms and upon whom cholecystectomy was performed in spite of the negative radiographic findings

4 Reports of stone visualization (*a*) In nonfunctioning gallbladders with stones, the percentage of accuracy will be the same as that obtained with the plain film—30–35 per cent as far as the presence of stones is concerned But it can also be, I believe, fairly stated that, in a considerably higher percentage, stones will be found because a very high percentage of diseased gallbladders contain stones with or without calcium, and only those containing calcium can be demonstrated in a gallbladder which cannot be visualized (*b*) In functioning or visualized gallbladders, the presence or absence of stones should be demonstrated with a theoretic accuracy of 100 per cent Practically, however, a percentage of accuracy approaching 95 per cent may be reasonably expected

In commenting upon the above statistics pertaining to the accuracy of x-ray diagnosis, it should again be emphasized that the results obtained are dependent upon the care with which such studies are conducted, and with such care there is no other single clinical test which can approximate this record in the diagnosis of biliary-tract disease

Delayed Surgical Treatment

Though it seems superfluous, it is difficult to refrain from comparing the desirability of early surgical treatment with the disadvantages of delayed or late surgery. It seems entirely illogical and unjustifiable to ignore, or at least not to recommend, surgical interference in cases of early or mildly complicated gall-tract disease because of the lack of severe or disabling complaints or repeated attacks of typical colic and jaundice, when one knows that weeks, months, or years later the same patient will in many instances require more extensive surgery at a less opportune time and under conditions far less favorable, due to complications which are the result of progressive, protracted, and, at times, irreparable disease

At this later date, the necessary surgery is, as the disease has become, more complicated, more serious, and of greater risk to life, and the results, therefore, are less satisfactory The attitude taken above is not exaggerated or far-fetched On several occasions, upon inquiring of an elderly woman patient with long-standing jaundice, who has suffered for twenty or thirty years with typical signs and symptoms of gallstone disease, as to why she had not submitted to surgery at an earlier date, the usual reply has been that it was never advised, or it was thought too risky and dangerous by her physician Such an attitude on the part of either physician or patient can only be explained, though not excused, by failure to appreciate the relative safety of early and adequate surgical treatment of biliary-tract disease

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acute appendicitis has been made. It is even difficult at times to delay operation, though it may be to the patient's best interest, because of pressure from family, relatives, or friends. The lay public is dependent upon and seeks the help and advice of the physician in whom he or she has confidence, and the influence of that physician is tremendous. The response of the patient to the advice given will be, in the great majority of cases, in direct proportion to the time and effort spent in explaining the situation and convincing him of the disadvantages resulting from delay.

Inadequate Surgical Treatment

At the same time that one is extolling proudly the virtues and the safety of early biliary-tract surgery, it must also be admitted that in many instances and in many ways the surgical treatment administered has been either ill-advised or inadequate. Such inadequacy accounts in no small way for many of the failures and some of the fatalities and reflects unfavorably on a most creditable form of therapy. To be sure, at times errors in judgment or technic are unavoidable and will be made in spite of great care and skill, but far too often these errors are the result of poor surgical judgment, unskillful surgery, or a combination of both.

One could develop this theme at great length and in a most convincing manner, but, for the sake of brevity, it seems sufficient to list some of the more obvious as well as common factors contributing to the failures in biliary-tract surgery.

Errors Attributable to Poor Surgical Judgment.—(*1*) Improper selection of cases for operation due to faulty diagnosis; lack of appreciation of the relative reliability, significance, and limitations of an accurate, detailed history; failure to eliminate other sources of disease which may account for symptoms (gastrointestinal, renal, cardiac); lack of respect for the properly taken and interpreted cholecystogram; (*2*) careless or inadequate preoperative study and preparation as well as poor postoperative observation and care; (*3*) unwise selection of the opportune time for operation, the anesthetic, and the surgical procedure.

Errors Attributable to Inadequate Surgery Which Are Avoidable.—(*1*) Ill-advised cholecystostomy with complete removal of stones; (*2*) well- or ill-advised cholecystostomy without the complete removal of stones obstructing the cystic or common ducts; (*3*) ill-advised cholecystectomy in the presence of a normal cholecystogram; (*4*) incomplete cholecystectomy with residual stones and infection in the remaining gallbladder stump; (*5*) portions of cystic duct allowed to remain with contained infection and stones; (*6*) trauma to hepatic or common ducts and other important associated structures; (*7*) failure to identify, visualize, and satisfactorily explore suspicious ducts; (*8*) failure to recognize the signs of infection or obstruction of ducts; (*9*) incomplete identification and removal of existing duct stones in the course of exploring the open duct (unavoidable at times); (*10*) lack of appreciation of the use and merits of the operative and postoperative cholangiogram; (*11*) failure to remove a normal-appearing gallbladder in which no stones can be palpated but which has shown a pathologic cholecystogram (many will contain numerous small calculi); (*12*) failure to explore the extrahepatic ducts in a patient whose history and clinical findings suggest duct obstruction, but in whom the gallbladder appears normal.

Errors Attributable to Inadequate Surgery Which Are Unavoidable.—(*1*) The acute, fulminating, complicated case which demands urgent surgery regardless of risk or condition; (*2*) local complications which make the proper surgery impossible or impractical, making a compromise type of procedure necessary; (*3*) anesthetic reactions which force a hasty conclusion to an otherwise carefully planned procedure; (*4*) failure to identify and remove all duct stones in spite of conscientious and skillful search (usually avoidable).

There are, no doubt, many other factors not included among those mentioned, but the more frequent ones, and particularly those which are avoidable, are emphasized to bring out the need for constant vigilance in order to avoid failure.

In addition, however, one should not fail to mention the frequently described, so-called postcholecystectomy syndrome, supposedly due to dyskinesia of sphincter mechanism.

The annoying postoperative persistence of attacks of colic is most distressing to both the patient and physician, and this situation unfortunately occurs not too infrequently. Though many studies have been made and much has been written about it by competent observers, the problem is not well understood. It is the author's impression that the frequent errors in judgment, diagnosis, and surgical technic mentioned previously can and do account for many of the patients assumed to be suffering from biliary dyskinesia.

Such a stand is strengthened by the fact that the syndrome is most frequently observed in those patients in whom the removed gallbladder has contained no stones, for which reason one must seriously consider the possibility or even the probability of error in diagnosis, and the resultant failure to identify the original existing and aggravating pathology. Also, because many show only temporary postoperative distress, a

likely possibility is that one may have overlooked infection, débris, and calculi which are later spontaneously eliminated from the ducts.

If this supposition is correct, improvement in surgical judgment and greater perfection in surgical technic will do much to decrease the incidence of this particularly annoying condition and to decrease further the number of operative failures.

Summary

The treatment of biliary-tract disease is, in most instances, surgical. There are many pitfalls in the diagnosis as well as in the surgical management. The operative results in benign biliary-tract disease, relating to both morbidity and mortality, are dependent upon the skill and judgment of the internist and surgeon. The record is remarkably good and progressively improving.

The internist is, as a rule, the first to see the patient and naturally must assume much of the responsibility for early, accurate diagnosis and surgical therapeusis. The cholecystogram is of extreme importance and help. Uncomplicated disease is easily and safely treated. Complicated disease is much more serious, and technical operative difficulties are often great, particularly in relation to the demonstration and removal of all stones from the ducts. The operative and postoperative cholangiogram is of considerable aid in detecting residual duct stones. It is the surgeon's responsibility to see that the surgical procedure performed is well advised and adequate in order that failures may be kept at a minimum. The importance of early surgery to avoid complications and the more frequent and more thorough exploration of the ducts are stressed. Additional factors not infrequently contributing to failures are listed.

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PENICILLIN IN LOZENGES

Giving patients penicillin lozenges to dissolve in their mouths like cough drops is an effective method of using the mold chemical to combat strep sore throat, trench mouth, and other mouth and throat infections, two British scientists, Dr. Alexander B. MacGregor and Dr. David A. Long, report.

Pain, fever, and disease germs were banished in twenty-four hours in some cases. All the trench-mouth patients, 25 at the time of the report, were free of symptoms within twenty-four hours, and within five days their mouths had completely healed and they could stop taking the medicine. Up to three and one-half months later there were no relapses, although the British doctors point out that procedures to eliminate gum pockets and stagnation areas will be necessary to prevent reinfection at a later date.

In cases of acute streptococcal tonsillitis there was "great relief" in twenty-four hours and within forty-eight hours all the patients were free of fever. A grown person severely ill with scarlet fever began taking solid food within twenty-four hours after the lozenge treatment was started. No other treatment was given, not even mouth washes, to these and the trench-mouth patients.

Hope that the lozenges might clear up the chronic carrier state was doomed to disappointment, however. *Streptococcus* germs were banished from the throats of the carrier while they were taking the lozenges, but in most of the patients the germs returned soon after the treatment was stopped. A medical student, however, was kept free of the carrier state long enough to finish his training in obstetrics, which the doctors point to as of practical value.

The lozenges also proved effective in combating germs in surgical cases such as tonsillectomies, tooth extractions, and the like.

The lozenges, three-fourths of an inch square by one-eighth of an inch thick, are made of gelatin and penicillin with a small amount of preservative. They have a "very slightly bitter taste" which apparently is not noticeable when there is any infection in the mouth or throat. Well persons who tried the lozenges did not find the bitterness "actively unpleasant."

The lozenge is put in the cheek and left there to dissolve without chewing or sucking. As soon as one has entirely dissolved, the patient takes another. One is taken at bedtime and during the night if the patient awakens. One patient by mistake ate ten of them during the first five minutes of treatment, but otherwise there was no trouble getting patients, even children, to take the lozenges as directed.—*Science News Letter, Jan. 6, 1945*

TRAUMA IN RELATION TO PEPTIC ULCER

IRVING GRAY, M D , F A C P , Brooklyn, New York

THE cause and pathogenesis of ulcer of the stomach and duodenum continues to be a subject of theoretic discussion and investigation The frequency of professional and incidental traumatization to the abdomen and more especially to the epigastrium which is unassociated with the onset of an acute peptic ulcer cannot be estimated There are, however, occasional instances in which severe, direct trauma to the epigastrium can cause acute peptic ulcer

Acute Peptic Ulcer Caused by Trauma

Case 1 —A woman aged 31 years was in a taxi-cab collision sustaining injuries to the abdomen Within twenty four hours she began to vomit blood and noticed tarry stools Previous gastric history was essentially negative After two weeks, the patient ceased vomiting and the stools returned to normal X ray study of the upper digestive tract seventeen days after the injury revealed findings indicative of an ulcer in the region of the pylorus and a defect in the duodenal bulb Subjective symptoms such as pain with occasional vomiting were present for approximately nine months after the accident, at the end of which time x ray examination revealed the stomach and duodenal bulb to be normal

Case 2 —A man of 37 years who had never had previous digestive complaints was forcefully struck in the upper abdomen by a wooden plank Within twenty four hours he began to complain of epigastric pain occasional vomiting, and discomfort after meals, there was no hematemesis X ray study one month after the accident revealed changes in the duodenal bulb indicative of an ulcer of the first portion of the duodenum Within three months, the symptoms subsided and x ray examination revealed normal findings

Case 3 —A man 41 years of age received a crushing injury to the upper abdomen in an automobile accident when he was caught between the steering wheel and the body of the truck. Persistent dull pain in the epigastrium with discomfort after meals continued for several weeks During the first few weeks, the stools were tarry X ray study three weeks after the accident revealed normal findings but a second examination two months later, showed evidence strongly indicative of an ulcer on the lesser curvature of the stomach A third x ray study, four months later, failed to reveal any evidence of a gastric ulcer

Case 4 —A man 41 years of age, fell off a scaffold for a distance of approximately 8 to 10 feet and struck the right upper abdomen against a plank He complained of pain and distress after eating, and occasional vomiting, there was no hematemesis, nor blood in the stools He had no previous history of any gastric symptoms The patient was first seen approximately six weeks after the accident Physical examination was essentially negative except for tenderness in the epigastrium and right upper abdomen

X ray study revealed the presence of an irregularity at the base and mesial aspect of the duodenal bulb A diagnosis of duodenal ulcer was made Gastric symptoms gradually abated and four months after the accident, x ray examination of the upper digestive tract revealed a normal duodenal bulb

These cases are cited as instances of acute peptic ulcer caused by trauma In 1933, Eusterman and Mayo[1] reported the case of a boy, aged 16, who was in an automobile accident and struck the epigastrium on the back of an empty tire rack X-ray study revealed the presence of a penetrating ulcer on the lesser curvature of the stomach Gastric symptoms persisted for more than five months The patient responded favorably to medical treatment Subsequent x ray studies disclosed a diminution in the size of the niche until finally no defect was visible A case is cited by Fertig[2] of a young man, aged 28, who was kicked in the midabdomen by a horse Two and a half hours after the accident operation seemed imperative No lesion of the stomach could be discovered when the abdomen was opened Death occurred several weeks later due to excessive hematemesis Postmortem examination revealed the presence of four small ulcers on the lesser curvature An eroded artery in the depths of the largest ulcer was held responsible for massive hemorrhage In a case reported by Hausbrandt[3] a young man of 21 received injuries to the thorax and abdomen when he was knocked down and kicked by a bull Postmortem examination revealed, among other findings, three large and several small ulcers on the anteroposterior surface of the stomach

Acute peptic ulcer may follow direct injury to the upper abdomen In our experience and in the case cited by Eusterman and Mayo, there is evidence to indicate that complete healing of an acute ulcer can and does occur Death may follow, however, in instances as cited, when the tear or bruising of the mucous membrane is associated with erosion of the arterial vessels Injury to the gastric mucous membrane or submucosal hemorrhages may occur with consequent digestion of the injured part The extent of the pathologic process in

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the gastric wall is the determining factor in relation to the complications that may arise.

The remarkable regenerative power of the gastric mucous membrane is well known. Without this power of the mucous membrane of the stomach to regenerate, gastric surgery would be impossible. In view of this well-known fact, it is reasonable to believe that, as a rule, injury to the mucous membrane of the stomach by any direct force is usually followed by healing.

Perforated Gastric Ulcer Due to Trauma

Case 5.—A man, 35 years of age, was struck directly in the epigastrium by a box which fell a distance of six feet. Within fifteen minutes thereafter he began to complain of epigastric pain which became generalized and increasingly severe. Operation seven hours after the accident revealed the presence of a perforation of an ulcer situated on the anterior wall of the stomach near the lesser curvature in the region of the pylorus. There was a minimal scar at the base. The patient denied any previous history of digestive symptoms.

Case 6.—A man, 51 years of age, had a direct blow to the epigastrium when he was struck by a drum containing oil. He had sudden onset of pain immediately thereafter. The pain became generalized and increasingly severe. Operation four hours after the incident described revealed a ruptured ulcer in the region of the pylorus. The ulcer was reported as being one-eighth of an inch in diameter.

No mention was made of any induration, thickening, or other signs of chronicity. The patient denied any past history of digestive complaints.

Case 7.—A man of 61 fell against the edge of some boxes, striking the upper abdominal region. There was immediate onset of pain which became progressively worse. Operation several hours later revealed a ruptured ulcer on the anterior surface of the stomach about two inches above the pylorus. The ulcer was indurated and about the size of a dime. There was no previous history of gastric symptoms.

Case 8.—A man, 50 years of age, was struck in the abdomen by a plank "while pulling it out from a pile of lumber." There was immediate onset of pain in the epigastrium. The pain gradually became more continuous and more severe. Operation revealed the presence of perforation of an ulcer at the pyloric end of the stomach, on the lesser curvature and anterior surface.

Case 9.—The patient was a man, 43 years of age. Eighteen months prior to the accident described, he was operated on for a chronic duodenal ulcer, at which time a partial gastrectomy was done. During this period of eighteen months the patient was relatively free from any digestive complaints. He received a direct blow to the midabdomen when he tripped and fell, striking the "upper part of the stomach against a corner of beef." He began to complain of pain within ten minutes after the incident described. The pain became progressively worse and generalized. At operation a perforation of a small ulcer on the anterior wall of the stomach near the lesser curvature was found, approximately two inches above the site of the previous operation.

Case 10.—The patient was a man, 43 years of age, with a known history of digestive disturbances for approximately two years. Epigastric pain had become progressively worse, and during April, 1944, had been associated with vomiting at times. On the morning of the day of the alleged incident, he complained of pain and "feeling uncomfortable" after breakfast. The patient states, "I bent down and lifted up a heavy can of ashes; first time I have done this and I had very bad pain in the stomach." The symptoms became progressively worse and the patient was operated on. A perforated ulcer in the midgastric area on the lesser curvature of the stomach was found. The ulcer was indurated and about the size of a dime.

In this last instance, the history would indicate that the patient had digestive symptoms which had become increasingly severe a month prior to the incident described. The clinical symptoms suggest that the ulcer was at the stage of perforation when the patient was engaged in unusual effort.

Direct injury to the upper abdomen can cause perforation of a pre-existing ulcer, as is revealed by these case citations. It is a well-known clinical fact that in most instances perforation occurs after the intake of food, when there is increased intra-gastric pressure. In the cases cited above (except Case 10) the symptoms of ulcer were "silent." It is possible that the failure to elicit a history of past digestive complaints may have been due to the fact that medico-legal problems were present in each instance. In one instance (Case 9) the patient had recovered from a partial gastrectomy performed eighteen months previously for a chronic duodenal ulcer. Shortly after a direct blow to the epigastrium, the patient complained of pain, and at operation perforation of a peptic ulcer on the lesser curvature of the stomach was found. Unfortunately, a description of the local findings could not be ascertained. The question arose in this instance whether the trauma had caused an acute peptic ulcer that went on to perforate or whether the patient had a pre-existing, chronic peptic ulcer and that perforation followed the direct blow. The short time interval between the onset of abdominal complaints and the history of injury would favor the deduction that there had been a pre-existing peptic ulcer which had been caused to perforate by the direct injury.

Perforated Duodenal Ulcer Due to Trauma

Case 11.—The patient, 44 years of age, slipped and fell against a crate, "hitting the pit of the stomach against a board." The patient began to com-

plain of pain in the upper abdomen immediately after the injury The pain became progressively worse and generalized At operation several hours later, perforation of an indurated ulcer was found on the anterior surface of the duodenal bulb There was no past history of any digestive complaints

Case 12—A man 30 years of age, was engaged in driving a truck and installing refrigerators He slipped and fell and struck the upper abdomen against a refrigerator and had immediate "sharp pain in the right upper stomach" At operation, a perforation was found of a pre-existing, chronic duodenal ulcer The patient denies having had any previous digestive disorders

Case 13—A man 21 years of age, was working as a laborer on ovens The patient states, "I was carrying a box, passing through a door the box fell from my hands as I slipped and I fell on top of the box hitting the stomach" Pain in the region of the umbilicus started about half an hour after the episode described Several hours thereafter, it became progressively worse and generalized Twelve hours later he was operated upon and a ruptured duodenal ulcer was found The patient denies having had any previous digestive complaints

X-ray examination revealed the presence of findings indicative of a chronic ulcer of the first portion of the duodenum

In all three instances, the past history was "silent" for digestive complaints It is well recognized that spontaneous perforation or hemorrhage may be the first sign of chronic duodenal ulcer The variation in the clinical history of patients with pre existing ulcer may be due, as Labman[4] pointed out, to the alterations and sensitivity among individuals Direct trauma can and does produce perforation of a pre-existing duodenal ulcer, and it is reasonable to expect that the onset of pain will follow immediately after the history of a direct blow A continuity of symptoms with increasing severity of the abdominal pain is to be expected when trauma has caused the ulcer to perforate

Pre-Existing Peptic Ulcer, Aggravated by Injury

Case 14—A man 58 years of age, had a past history of digestive disorders for three to four years The patient was employed as a general superintendent in a building He fell against a radiator, striking the upper abdomen Prior to this episode, he had had a few digestive complaints The symptoms had been controlled by proper diet and therapy There was immediate onset of pain in the abdomen with vomiting of food after meals which persisted for about three to four months X-ray examination seventy two hours after the injury revealed the presence of an ulcer of the lesser curvature of the midgastric area X-ray study three months later revealed a return of the gastric contour to normal The patient was told that he "had a stomach ulcer when x-rayed three years ago" At no time was there any vomiting of blood or blood in the feces

Case 15—The patient was a male adult, 57 years of age, with a known gastric ulcer for approximately five to six years The patient stated, "While loading a truck of gravel, a sand bank caved in and I was caught between the truck and bank, I was hit in the upper part of the stomach" The patient vomited blood six to eight hours after this *incident and vomited on occasions for the first* forty-eight hours The patient had hypertensive, arteriosclerotic heart disease Gastric symptoms had been controlled with diet and medication X-ray examination of the stomach revealed the presence of an ulcer on the lesser curvature of the stomach in the region of the pylorus On examination six months after the accident, all gastric symptoms had subsided

The above two cases are illustrative of a known, pre existing peptic ulcer aggravated by a direct blow to the upper abdomen The symptoms produced by the injury were transient

Case 16—The patient was a man, 35 years of age Approximately "twenty five years ago he was struck hard in the upper stomach when pushing a cart, he had blood in the stools and was treated for intestinal hemorrhage for six weeks Ten years ago, he was in an automobile accident and was struck in the abdomen by the steering wheel, he vomited blood and had blood in the stools for about one week This time, he slipped and fell and struck *the stomach on a bumper and about eight hours* later, he vomited blood and had blood in the stools Vomiting lasted two days and the blood in the stools about two weeks' X ray examination revealed the presence of findings indicative of a chronic ulcer of the first portion of the duodenum

Case 17—A white man, 39 years of age, had had a known duodenal ulcer for the past seven years The patient was symptom free for five years He had "an altercation and was punched all over the stomach high up" Forty-eight hours later, the patient noticed blood in the stools and began to complain of pain after meals with occasional vomiting Blood was present in the feces for approximately ten days Gastric symptoms subsided within six weeks X ray study revealed the presence of findings indicative of a chronic ulcer of the first portion of the duodenum

Case 18—The patient was man of 62 with a known duodenal ulcer for at least thirteen years Approximately twelve years ago, he had a spontaneous episode of hematemesis and melena X-ray study at that time revealed the presence of a duodenal ulcer Following a direct blow to the upper abdomen when the patient tripped and fell, *there was a recurrence of digestive complaints* The patient stated that he had had "no stomach trouble for at least five years" He continued to have distress one to two hours after meals and also night pain, although the patient was on proper diet and therapy Approximately one week later, he had an attack of hematemesis and melena w

lasted for about one week. X-ray study after cessation of symptoms revealed the presence of an ulcer of the first portion of the duodenum.

The three cases cited above are illustrative of the onset of hematemesis or melena, or both, following a direct injury to the upper abdomen. In one instance (Case 3), there had been three episodes of bleeding following direct injury to the epigastrium on three distinct occasions over a period of twenty-five years. This patient stated that he had been comparatively well and had had few digestive complaints in the intervals. In the cases described, there was only a temporary period of disability due to the injury.

Case 19.—The patient was 40 years of age, with a known duodenal ulcer of three years. He was free of digestive symptoms until the onset of vomiting following exposure to smoke from fire on a ship. Vomiting persisted and was associated with hematemesis. Vomiting of blood was copious. The patient was admitted to the hospital and, despite blood transfusion and supportive therapy, he died.

Case 20.—A 40-year-old man had acute lead poisoning manifested by upper abdominal symptoms. Nausea and vomiting were associated with the presence of occult blood in the stools. X-ray examination of the upper digestive tract revealed the presence of pylorospasm and ulcer of the first portion of the duodenum. Gastric symptoms subsided within several months after the attack of lead poisoning. The patient recovered from the lead poisoning approximately one year after the initial attack and returned to work. After working two days, "the smell of the paint made me sick and I began to vomit blood." Because of the profuse vomiting of blood, the patient was hospitalized. On admission, the critical condition of the patient prevented any surgical intervention. Despite continuous blood transfusion and supportive therapy, the patient died. The essential finding on postmortem examination as related to the gastrointestinal tract was the presence of an ulcer in the first portion of the duodenum with an erosion of the pancreaticoduodenal artery.

These two cases are cited as illustrative of the aggravation of a pre-existing duodenal ulcer. Trauma or injury to the epigastrium, when direct, may aggravate an underlying ulcer of the duodenum. There are occasional instances, however, when such symptoms as vomiting caused either through some unusual event or by virtue of an occupational contact may precipitate acute gastric symptoms such as hematemesis.

Pre-Existing Peptic Ulcer Revealed by Routine Activities

Case 21.—A 34-year-old man had been operated on for a ruptured peptic ulcer ten years previously. Two years and one year, respectively, prior to the present history, the patient had had a spontaneous attack of hematemesis. The patient's work on screens necessitated his reaching and stretching. He had a spontaneous episode of hematemesis during working hours. No unusual event occurred on the day the patient had a hemorrhage.

Case 22.—A man, 42 years of age, was superintendent of an apartment house. The patient had a known, chronic duodenal ulcer, and five years previously had had an attack of melena. During the winter months he had been accustomed to lift ten to fifteen ashcans daily. He noted tarry stools one evening after a day's routine activities. There was no history of any unusual event transpiring on the day the patient noted the tarry stools.

These two cases are illustrative of the spontaneous onset of bleeding in individuals known to have had chronic peptic ulcer. There had been episodes of spontaneous bleeding on previous occasions. The assumption that the present incident of bleeding was related to routine physical activities is not warranted.

Case 23.—The patient was a man, 47 years of age, with a known chronic duodenal ulcer for at least seven years. In the course of his regular work as a shoe salesman for a period of several years, he lifted a carton of shoes one day and had "a sharp pain in the stomach." Signs and symptoms of ruptured ulcer were present. This patient had a known duodenal ulcer for seven years and was operated on for a ruptured duodenal ulcer. Some fifteen months following recovery from the operation, he had a spontaneous gastric hemorrhage. There was no evidence whatsoever to indicate any complications as a result of the operative procedure. During the life cycle of peptic ulcer, spontaneous episodes of hemorrhage occur, and in this instance it is reasonable to conclude that the patient's routine activities were in no way responsible for the gastric hemorrhage.

Case 24.—A man, aged 38, was working as a carpenter's helper, lifting lumber daily. He complained of pain in the stomach following heavy lifting one day. The symptoms persisted and x-ray examination of the upper digestive tract revealed findings indicative of an ulcer of the first portion of the duodenum. There was superficial abdominal tenderness and the pain was relieved by the use of a support for the abdominal muscles. There were no past or present symptoms referable to the ulcer. A diagnosis of abdominal muscle strain as the cause of the symptoms was made.

Case 25.—A man, 30 years of age, had been working for two years as an electric welder on ships. There was no past history of any digestive disturbances. The patient states, "because of the gases and fumes around the ship, I became nauseous and had some pain in the stomach." X-ray study of the upper digestive tract revealed the presence of an ulcer on the lesser curvature in the midgastric area. All digestive symptoms subsided within one week after the patient's occupation was changed

These cases are illustrative of the fact, which is

well recognized, that peptic ulcer may exist without clinical symptoms In one patient (Case 4) abdominal muscle strain as a result of his work developed X-ray study revealed the presence of a duodenal ulcer which was not clinically active In the second patient (Case 5) gastric symptoms arose, which were temporary The clinical symptoms due to the patient's work brought him to a physician, and an underlying "silent" peptic ulcer was revealed

Temporary Aggravation of Peptic Ulcer Due to Occupational Factors

Case 26 —A man, 56 years of age, was exposed to the inhalation of carbon monoxide in his work The patient had an attack of mild carbon monoxide poisoning manifested by dizziness, nausea and vomiting The nausea and vomiting persisted for several hours and were followed by the vomiting of blood and appearance of tarry stools The patient had a known pre existing ulcer for at least four years The vomiting of blood ceased within forty eight hours and blood was absent from the stools one week after the incident described Subsequent x ray examination revealed the presence of a chronic ulcer of the first portion of the duodenum *There was complete cessation of all gastric* symptoms within two months after the patient first became acutely ill

Case 28 —A 40-year-old man had been employed *as a painter for about twenty years The onset* of acute lead poisoning was manifested by nausea and vomiting and abdominal colic X-ray study of the gastrointestinal tract revealed the presence of an ulcer of the first portion of the duodenum Following the removal of the patient from his occupation and after treatment for the lead poisoning, the gastrointestinal symptoms subsided within a period of four to six months Subsequent x-ray examination revealed no complications of the pre-existing ulcer

Case 29 —A man, 48 years of age, had been working as a pipe fitter on a ship for about two years and "was all around welders and burners" The patient complained of nausea Vomiting then set in and 'had pains in the stomach off and on" There was no previous history of any digestive disturbances X ray examination revealed the presence of an ulcer of the first portion of the duodenum The symptoms gradually subsided following change of occupation and the patient was entirely well subjectively within six weeks after the onset of symptoms

These three case reports are illustrative of a temporary aggravation of a pre-existing ulcer due to occupational factors Recovery in each instance was uncomplicated

Discussion

Experimental work on animals reported by various authors would indicate that direct trauma over the region of the stomach can be followed by the presence of acute peptic ulcer [5–7] Microscopic examination of the stomach of these animals showed, in some instances, a separation of the mucosa and submucosa by hematoma Ritter[5] concluded that the peptic action of gastric juice would have produced an ulcer in a short time Subsequent animal experiments of a similar nature performed by other investigators[8–10] revealed the fact that the mucous-membrane injuries healed quickly Tears of the mucous membrane and hemorrhage into the walls of the stomach in these experimental, traumatized animals occurred more frequently when the stomach was full than when the stomach was empty. There is a natural tendency, after such trauma, toward healing There is adequate proof to indicate that in some instances direct, severe force to the epigastrium can produce an acute peptic ulcer in the human being

The question as to whether or not a single trauma such as a direct blow to the epigastrium can produce a chronic ulcer of the stomach and duodenum still remains a debatable subject Crohn and Gerendasy[11] report the onset of a duodenal ulcer following a direct blow to the *epigastrium in a patient 45 years of age* There had been no history of any digestive complaints prior to the accident Two years after the injury, symptoms of duodenal ulcer still persisted It has been estimated that about 5 per cent of the adult population "have or have had a gastroduodenal ulceration It is probably equally true that in some of these individuals the ulcer may possibly be dormant or latent"[12] In view of the well-known fact that the mucous membrane of the stomach regenerates rapidly and in view of the clinical experience that ulcer may exist without symptoms, any assumption that a single, direct blow can cause chronic peptic ulcer is entirely hypothetic Limiger and Molineus[13] have specified the following postulates that must be fulfilled before trauma can be held to be the cause of ulcer

1 Proof of the absence of gastric disease prior to the accident
2 The trauma must be severe and localized to the epigastric region
3 The immediate onset of symptoms
4 The continuation of symptoms and signs that point to gastric ulcer

Although proof of absence of gastric disease prior to injury is in most instances difficult to obtain, the fact remains that the absence of clinical symptoms does not mean normal integrity of the gastric and duodenal mucous membrane There are reports in the literature[14–17] in which it has been assumed from the clinical point of view that one single injury caused a

chronic ulcer of the gastroduodenal tract. Any such assumption, as stated previously, is entirely hypothetic, in view of the well-known fact, as indicated in the case citations above, that peptic ulcer may exist without any clinical symptoms whatsoever. Not infrequently, perforation or hemorrhage may be the first symptom or sign of chronic peptic ulcer. The effect of trauma in any given case can only be evaluated after a thorough analysis of the history and complete examination of the patient.

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Discussion

Dr. Henry A. Rafsky, *New York City.*—The causal relationship between trauma and peptic ulcer is a most interesting and also a very controversial subject.

I have observed patients who developed ulcer symptoms, including gastric bleeding as well as perforation, after severe physical trauma. The question always arose as to whether the patients had an ulcer before the injury. In the absence of a previous history this was a most difficult question to decide. In duodenal ulcer if the x-ray examination after an injury shows a niche and this disappears as well as the deformity, then we can definitely state that the patient did not have the ulcer before the injury. Penetrating ulcers of the stomach may develop very quickly, as I have demonstrated upon a previous occasion, and may heal completely so far as we can determine by means of an x-ray examination. In the cases I reported the gastric ulcers developed after an emotional disturbance. This brings up an important question, namely, which is the more important factor, the injury or the psychic trauma resulting from the former? An injury severe enough to cause an ulcer is certainly attended with a severe emotional disturbance.

I recall seeing a patient who was struck by a tree. Although he suffered no injury to his abdomen, the episode was followed by severe gastric bleeding. In this case there was no doubt that the ulcer symptoms followed the injury, but they could not be attributed to direct trauma of the abdomen. During the present global conflict it has been demonstrated that either individuals in the armed forces or civilians subject to a severe mental strain as a result of air raids may develop ulcer symptoms without any physical injury. Many of these individuals have no previous ulcer history. Personally, I am inclined to believe that an individual with an ulcer diathesis and a sensitive autonomic nervous system, if injured, may develop an ulcer or an acute exacerbation of an ulcer which is due more to the psychic trauma than to the actual physical injury.

NEW DUTCH MEDICAL ASSOCIATION

In anticipation of the tremendous demands that will be made upon Holland's medical profession when the country's still occupied provinces will have been freed and immediate alleviation must be brought to millions of victims of frost and famine, the physicians in the liberated area have formed a association to centralize their functions for a speedy rehabilitation of public health.

Throughout the years of enemy occupation, the medical profession has been one of the few groups which uniformly refused to adopt Nazi methods and which remained steadfastly united in their resistance against the diabolic ideology. Although hundreds of doctors were thrown into concentration camps and thousands saw their possessions confiscated by the tyrants, they carried on their struggle against such measures as sterilization, the killing of the weak and insane, and the medical examination of men unfit for forced labor. So tenacious was the attitude of these physicians and so persistently did they rebuke the Nazi rulers for their crimes against the people's health, that in the end the German authorities were compelled to let them carry on their healing-work in peace—or at least, without too much interference on the part of the authorities.

A central medical information bureau has now been established in Tilburg, in North Brabant province, while a fortnightly periodical, *Medisch Contact* (Medical Contact), will keep the members of the new organization informed regarding health conditions as they will be found in the northern provinces.

At the same time, the association will represent the physicians in matters of an economic nature.—*Release from the Netherlands Information Bureau, Feb. 16, 1945*

INTESTINAL HELMINTHS IN NEW YORK AND VICINITY

H W Brown, M D , New York City

IN A NORTHERN area, such as New York and vicinity, the intestinal parasites which are present are, in general, of two types

1 Intestinal parasites that are introduced into this area by the migration of their hosts from more southern areas where the infection was acquired Thus in this vicinity one may see patients infected with Ascaris Lumbricoides, the large roundworm of man, Necator americanus, the hookworm, Trichuris trichiura, the whipworm, Strongyloides stercoralis, and Schistosoma mansoni Persons from the rural south, as well as those from tropical areas are found from time to time in New York harboring these parasites

2 The second group of intestinal parasites that one encounters in medical practice in this general area are those which may be acquired here For example, Trichinella spiralis, which is obtained from eating infected pork, accounts for from one to seven deaths a year in New York State, and from 127 to 241 cases have been reported annually since 1934 Likewise the tapeworms, Taenia saginata and T solium, which are acquired from eating infected beef or pork, are reported from time to time in this area Probably the most common intestinal helminth found in New York and vicinity is Enterobius vermicularis, the pinworm or seatworm of man Although this worm seldom, if ever, results in the death of man, it causes considerable irritation and inconvenience Since my time is limited I shall discuss in some detail the problems presented by this parasite

E vermicularis is a small white worm, the female is 8–13 mm in length, and the male only 2–5 mm long Instead of passing eggs, as is the habit of many of the intestinal worms, the female Enterobius stores the eggs that she produces within her body until she becomes gravid containing as many as 11,000 eggs These eggs are small and are characterized by being flat on one side and containing a small larva within When the female becomes gravid with eggs, she migrates out to the anal region and wanders around in this area, causing intense pruritus Due either to scratching of the host or to drying, the worm bursts, freeing thousands of eggs in the anal region Within a few hours these eggs complete their development to the infective stage and are either carried to the mouth on dirty hands soiled through scratching or hands that are contaminated with eggs through contact with contaminated bed linens clothes, or hands Once in the mouth, these eggs hatch and a small larva is free in the upper intestine This worm gradually grows and develops over a period of four to six weeks, migrating down the intestine as it does so After fertilization the female produces eggs and in about six weeks after the ingestion of the egg the gravid female now migrates out to the anal area Thus it will be seen that the infection is one acquired through poor personal hygiene and associated with infected persons and environment

There is considerable disagreement as to the damage done by the presence of E vermicularis There is no question, however, that the intense pruritus is very irritating and results in loss of sleep It is possible that they may produce a mild inflammation of the intestinal mucosa and irritate exposed sympathetic nerve endings, producing insomnia, nervousness, etc Recently Dr Wright and coworkers have shown that children who have been freed of their pinworms gain on an average of 2 74 pounds in the following two weeks Occasionally these parasites are found in the appendix, but the evidence available at present is rather inconclusive as to its role in the causation of appendicitis

Diagnosis

Since the female pinworms do not pass eggs in the stool but store them in their body until they migrate from the host stool examinations for the presence of eggs are very unreliable Recently Dr M C Hall has devised a cellophane tipped swab which is extremely valuable in making laboratory diagnosis A square of nonwaterproof cellophane about three-fourths of an inch square is folded over a small glass rod and held in place by a rubber band This swab is scraped around the anal region and, as the cellophane becomes moistened by contact with the skin it becomes sticky and any pinworm eggs in the anal region may become attached to it The cellophane is then removed, placed on a microscope slide in a diluted sodium hydroxide solution and a cover slip applied Examination is made by low power of the microscope One examination discloses about 70 per cent of the infection, whereas examinations on six consecutive days will diagnose practically 100 per cent of the infections

Treatment

The most effective treatment of Enterobius infestation is gentian violet by oral administration The recommended dose is 0 010 Gm per year of age, the total dose arrived at by multiply-

ing the age of the child by this figure, and dividing by 3, as the material is given before each meal for a period of eight days. The adult dose of gentian violet is 0.065 Gm. (1 grain) three times a day for eight days. This regimen of treatment will cure the majority of patients. If necessary, however, the treatment series may be repeated. Headaches, nausea, vomiting, and diarrhea may accompany the treatment with gentian violet and may necessitate temporary cessation of medication. Other drugs useful in treatment of this condition are tetrachloroethylene and hexylresorcinol.

Inasmuch as pinworm infection tends to be a family infection contracted at home, it is necessary to treat all of the family who are infected at the same time, otherwise there will be reinfection in the household. It is also important to educate the patients as to the source of their infection so that there can be improvement in their personal hygiene, such as hand-washing after toilet and avoidance of scratching the anal region. Bed sheets, underclothes, and night clothes should be boiled every two or three days to kill any eggs which may have been deposited on them, while the patients are under treatment.

FOUNDATION FOR TROPICAL MEDICINE MAKES AWARDS

A gold medal and an honorarium of $500 for outstanding service in the field of tropical medicine were presented Monday, February 5, at the University Club, New York City, to Rear Admiral Edward R. Stitt, retired, former Surgeon General of the United States Navy, by the American Foundation for Tropical Medicine.

The presentation was made on behalf of the Foundation by Col. Richard Pearson Strong, MC, director of tropical medicine at the Army Medical School, Washington, D.C., and recipient of last year's award, before representatives of business, medical, and educational institutions.

The medal and honorarium were established in 1944 through a gift by the Winthrop Chemical Company. Known as the Richard Pearson Medal and bearing a profile of Dr. Strong on its face, it is to be awarded annually for distinguished service in tropical medicine.

In conferring the award, Colonel Strong declared that "Rear Admiral Stitt is an exponent of scientific truth in his medical publications and reviews. His leadership, inspiring example, and devotion to work in the field of tropical medicine through many years have justly won for him the epithet of 'Father of Tropical Medicine in the United States.'"

The citation reviewed Admiral Stitt's numerous contributions to the growth of scientific knowledge of tropical diseases, dating back to 1914 when he wrote the first American textbook of tropical medicine. He was Surgeon General of the United States Navy from 1920 to 1928 and has held professorships in the schools of tropical medicine at Georgetown University, George Washington University, and the University of the Philippines; he has been a lecturer at Jefferson Medical College, Philadelphia, and lecturer and commanding officer of the United States Naval Medical School. He was a member of the National Board of Medical Examiners from 1915 to 1929, and held the presidency from 1926 to 1928.

Since 1941 Admiral Stitt has been a lecturer on tropical medicine at the Army Medical School.

Principal speaker at the presentation meeting was Maj. Gen. George C. Dunham, of the Office of Co-ordinator of Inter-American Affairs, who delivered an address on "Tropical Medicine and International Relations."

Dr. Henry E. Meleney, professor of preventive medicine at the School of Medicine, New York University, and newly elected vice-president of the Foundation, presided at the meeting. Col. Thomas T. Mackie, president, was unable to be present at the meeting because of his assignment with the American Typhus Commission to the Burma-India theater of operations.

BOARD OF OBSTETRICS AND GYNECOLOGY EXAMINATIONS IN JUNE

Part II of the general oral and pathology examinations held by the American Board of Obstetrics and Gynecology for all candidates will be conducted at Atlantic City, New Jersey, by the entire Board from Thursday, June 14, through Tuesday, June 19, 1945. The Hotel Shelburne in Atlantic City will be the headquarters for the Board. Formal notice of the exact time of each candidate's examination will be sent him several weeks in advance of the examination dates. Hotel reservations may be made by writing direct to the Hotel.

Candidates for re-examination in Part II must make written application to the Secretary's Office not later than April 15, 1945.

The Office of the Surgeon-General (U.S. Army) has issued instructions that men in service, eligible for Board examinations, be encouraged to apply, and that they may request orders to detached duty for the purpose of taking these examinations whenever possible.

Candidates in military or naval service are requested to keep the secretary's office informed of any change in address.

Deferment without time penalty under a waiver of our published regulations applying to civilian candidates will be granted if a candidate in service finds it impossible to proceed with the examinations of the Board.

Applications are now being received for the 1946 examinations. For further information and application blanks, address Dr. Paul Titus, Secretary, 1015 Highland Building, Pittsburgh 6, Pennsylvania.

THE AUGMENTATION OF STILBESTROL EFFECT IN MENOPAUSAL WOMEN BY VITAMIN C

Leo Bonnin, M D , Queens, New York

(From the Endocrine Service, Metropolitan Hospital)

THE synthesis of vitamin C, its availability, and the development of more accurate chemical methods of determination have given great impetus to an analysis of the various phases of its activity While its role in human metabolism remains somewhat obscure, the experiments of a number of investigators are informative

Some authors describe a relation between vitamin C and the hormones controlling sexual development and activity Andrews showed, in numerous animal experiments, that vitamin C metabolism is partially under endocrine control [1] He sympathizes with the view that ascorbic acid may be considered a hormone in some species rather than a vitamin He and his associates found that the corpus luteum of pregnancy in the guinea pig contains twice as much vitamin C as that of the nonpregnant female [2]

Plasma ascorbic acid consistently decreases after the injection of equine gonadotropic hormone into either the bull or steer The return to normal plasma ascorbic acid levels proceeds slowly unless additional vitamin C is administered The decrease in vitamin C may be sufficient to interfere with the physiologic process which, theoretically, the gonadotropic hormones should have induced Cio and Schteingart [3] improved gonadal function in both sexes by administering supplemental doses of vitamin C They used normal rats for their experiments Perhaps ascorbic acid has some practical therapeutic value in habitual abortion

Ascorbic acid is intimately involved in the production of virile sperm in the bull and in the early phases of the reproductive processes in the cow [4] Ascorbic acid therapy in impotent bulls resulted in increased vitamin C content of both semen and blood plasma, accompanied by a corresponding improvement in the bull's capacity for breeding

Certain types of sterility in the cow also proved amenable to this form of treatment The injection of gonadotropic hormones and ascorbic acid on successive days into adult rabbits is said to produce larger ovaries than in animals receiving the hormone only

Following the simultaneous injection of 25 rat units of gonadotropic hormone and 50 mg of ascorbic acid daily, Cio and Schteingart observed a twofold increase in development of the testis and penis, and of female genitalia in comparison with the changes following the use of hormone alone Ascorbic acid alone produced no change in the size of the gonads in normal immature and adult rabbits during short periods of treatment

Case Reports

These studies suggested a preliminary trial of the therapeutic value of vitamin C in augmenting the effect of estrogens in menopausal women The results are as follows

Case 1 —(1338/40) B I , age 43 had hot flashes headaches, vertigo, and blood pressure of 200/120 The menstruation had stopped five years previous to examination The patient was given stilbestrol, 0 05 mg daily, orally, for nine weeks without results However, fourteen weeks' medication with 0 5 mg stilbestrol and 75 mg of vitamin C daily brought the blood pressure down to 150/110 The patient had no further complaints After stopping vitamin C and administration of stilbestrol alone, impairment occurred The blood pressure rose to 190/120, and the hot flashes returned

Case 2 —(343441) N L , age 40, suffered surgical menopause after an operation one year previous to examination She had hot flashes and precordial pains Her blood pressure was 140/120 Combined stilbestrol and vitamin C therapy improved the condition of the patient in four weeks Administration of 0 5 mg stilbestrol was continued in the evening Four weeks later the patient returned with a bad relapse Only after combined therapy did improvement occur again

Case 3 —(1910441) B B , age 53, had climacteric syndrome, with the last menstruation one year previous to examination Stilbestrol alone was useless although 0 5 mg daily in the evening was given for eleven weeks After four weeks of combined therapy the blood pressure went down to 140/90 and remained at this level for the next month Her general condition improved

Case 4 —(287742) Q W had climacteric syndrome, menstruation had stopped three years previous to examination, and she had hot flashes, dizziness, and blood pressure of 200/100 Stilbestrol therapy for three weeks, 0 5 mg daily, proved useless After three weeks of combined therapy, however, her blood pressure went down to 140/90 Her general condition was much improved

Case 5 —(1875541) M B had climax hypertensive heart disease, irregular menstruation, hot flashes, dyspnea cardiac distress, and swelling of both feet in the evening Urine analysis was normal, and she had no heart murmurs Her blood pressure was 190/100 Medication with theobromine sodium salicylate was useless Combined

stilbestrol and vitamin C therapy resulted in improvement after three weeks. Her blood pressure went down to 160/90, and edema nearly disappeared. This patient took, in spite of prescription of vitamin C and stilbestrol, only stilbestrol, because she could not obtain vitamin C. Although she took 0.5 mg. of stilbestrol twice daily for five weeks, the blood pressure went up again to 220/120, and the edema relapsed.

Case 6.—(117742) A. W., age 40, suffered surgical menopause after operation seven months previous to examination, with precordial pains and dizziness; her blood pressure was 190/120. Stilbestrol therapy for four weeks proved useless. After combined therapy for three weeks she had no further precordial pains. Her blood pressure went down to 160/90.

Case 7.—(48242) M. F., age 45, had climacteric syndrome for one year, very irregular menstruation, many hot flashes, and blood pressure of 170/120. Stilbestrol therapy for seven weeks alone was useless. However, after four weeks' combined therapy her blood pressure went down to 140/90, menstruation became regular, and remained this way for many months under application of vitamin C alone without stilbestrol.

I do not want to mention in this report many other case histories which showed improvement after stilbestrol and vitamin C therapy, because I started immediately with this combination without trying stilbestrol alone. I was, furthermore, able to find some theoretic confirmation of my clinical results. We took the vitamin C blood level of 3 climacteric patients who never had taken stilbestrol. Then we injected subcutaneously 0.5 mg. of stilbestrol and again examined the vitamin C blood level after twenty-four hours. In the first case the level went down from 56 mg. to 50 mg., in the second case, from 40 mg. to 25 mg., and in the third, from 47 mg. to 34 mg. We took some more tests in other patients, but these did not return the next day for the control examination. Further experiments are under way. However, it was very interesting to note that in all reported cases the vitamin C level after application of only 0.5 mg. stilbestrol went down 25 per cent in the average. The reported figures represent mg. per 100 cc. of plasma.

The clinical and theoretic experiments show that apparently ascorbic acid is utilized in increased amounts whenever the quantity of available male or female sex hormone is augmented.

It was especially interesting to note that the blood level of vitamin C did not go down to the previous level even in a control examination taken three weeks after the injection.

Summary and Conclusion

1. Stilbestrol-vitamin C therapy was successful in 7 cases of female climacterium in which stilbestrol alone was not satisfactory.

2. It may be possible to stabilize the results obtained with stilbestrol-vitamin C therapy with vitamin C alone.

3. Our criteria of treatment are based on the general condition of the patients as reflected in subjective complaints and changes in physical examination.

4. The blood level of ascorbic acid is diminished after injection of 0.5 mg. of stilbestrol.

References

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SURVEY OF ANTIBIOTICS

An open meeting of the New York Institute of Clinical Oral Pathology will take place at the New York Academy of Medicine, 2 East 103rd Street, New York City, on Monday evening, April 30, 1945, at 8:15 P.M.

A symposium entitled "A Survey of the Antibiotic Problem" will be held and the following investigators will participate: Daniel Laszlo, M.D., Mt. Sinai Hospital, New York, "The Role of Biotics and Antibiotics in Chemotherapy"; Frank Lamont Meleney, M.D., associate professor of clinical surgery, College of Physicians and Surgeons, Columbia University, and director of the laboratory of surgical bacteriologic research, "The Problem of Penicillin in Treatment of Mixed Infections"; Leo Stern, D.D.S., Mt. Sinai Hospital, New York, "The Treatment of Acute and Chronic Infections of the Jaws with Antibiotics"; Kenneth M. Kahn, Lt. Col., MC, AUS, chief of section for otolaryngology, Halloran General Hospital, Staten Island, "The Relative Value of Antibiotics in the Treatment of Otolaryngic Diseases"; Louis I. Grossman, D.D.S., associate in oral medicine, and head of the Root Therapy Clinic, "Evaluation of Antibiotic Agents for Root Canal Treatment"; Ludwig von Sallmann, M.D., department of ophthalmology of the College of Physicians and Surgeons, Columbia University, "The Role of Iontophoresis in Ocular Therapy with Antibiotics"; Alvin E. Strock, Senior Assistant Dental Surgeon (R), U.S. Public Health Service Hospital, Manhattan Beach, Brooklyn, "Treatment of Ulcerative Stomatitis (Vincent's Infection) with Penicillin."

For further information address all communications to the Executive Secretary, 101 East 79th Street, New York 21.

Diagnosis

CLINICOPATHOLOGIC CONFERENCES

Fourth Medical Division of Bellevue Hospital

Date January 18, 1945

Conducted by Dr Max Trubek

Dr Marian T Schitroni A 57-year old Swedish barge captain was admitted on July 7, 1944 complaining chiefly of pain and stiffness in his arms and legs and profuse sweating The past history revealed that he was a marked chronic alcoholic, had had bronchial asthma for twelve years with repeated attacks and had been treated for bronchopneumonia on our Service in December, 1942 He had otherwise been well until eight weeks before admission when "overnight" he had a sudden onset of severe pain and stiffness in the muscles of his calfs, thighs and ankles, followed in one week by similar involvement of his arms and shoulders, with gradual loss of function in his arms The muscles of his neck were next involved so that he could not turn his head In a few days he became unable to swallow anything but liquids His appetite, however, remained fairly good Since onset of illness bowel movements were effected only with cathartics A cough, present seven months, had been aggravated just before admission with two recent episodes of blood streaked sputum There was no associated chest pain Dyspnea on moderate exertion and swollen ankles were present for about two weeks There had been a marked loss in weight over a period of several months, but the patient could not estimate the amount The past history and systemic reviews were otherwise entirely negative

Examination on admission revealed an emaciated middle-aged, white man, lying quietly in bed, apparently in no acute distress, but moving with extreme caution The temperature was 101 8 F, pulse 108, respiration 20, and blood pressure 108/65 Head, ears nose, and throat were negative The fundi showed slight tortuosity of the vessels with increased light reflexes The arteries and veins were equal in width The neck was not remarkable, there was no general glandular adenopathy The chest showed fair expansion There were some moist râles and slight dullness at both bases posteriorly The heart sounds were of fair quality, the aortic second sound was equal to the pulmonic second sound There was a soft systolic blow at the apex The abdominal and rectal examinations were negative, and the reflexes were physiologic The hands showed slight swelling of the proximal interphalangeal joints with poor flexion of the hands and a weak grip greater on the left and slight ulnar deviation of the fingers There was no pain, redness, tenderness, or warmth The wrists showed slight limitation of motion There was good, but cautious motion in the elbows shoulders hips, knees, and ankles with 1 plus edema of the ankles There was no difficulty with active or passive motion of the neck or with swallowing at the time of examination The large muscle groups of the limbs showed marked wasting especially of the proximal groups

Laboratory Data —The white blood count varied between 10 800 and 22,700 with normal differentials, the red blood count was between 3 5 million and 4 2 million with 9–10 Gm of hemoglobin The urine showed good specific gravity with 1 plus albumin and on one occasion only, moderate white blood cells The serology was negative Albumin globulin ratio was 2 1/2 7, uric acid 2 0, nonprotein nitrogen, 26, calcium, 7 9, phosphorus, 3 4, potassium, 25 0, sodium, 306, chlorides, 528, cholesterol, 74, esters, 27, acid phosphatase, 2 0, and alkaline phosphatase, 13 8 A twenty-four-hour urine excretion showed 465 mg of creatinine and 155 mg of creatine Two spinal taps revealed 27 cells and total protein between 50 and 66, but the taps were otherwise negative A gastric analysis showed no free hydrochloric acid The glucose tolerance was normal Electrocardiograms showed low voltage and sinus tachycardia X-rays showed widening of the supracardiac aorta, diffuse engorgement of both lungs, slight hypertrophic changes of the midcervical spine calcification of the pelvic vessels, and several punched out areas in the distal phalanges X-rays of the skull and a flat plate of the abdomen revealed no abnormalities

A precipitin test for trichinosis was positive in 1 1,280 dilution on August 14 and on August 24, but the complement fixation test was negative A skin test had not been done

Course —The patient complained of increasing pain and tenderness in his muscles He ran a low-grade, irregular fever with occasional rises to 101 F On the fourth hospital day a diagnosis of dermatomyositis was suggested and the creatine and creatinine excretion determination and muscle biopsy were suggested The biopsy

specimen was taken from the lateral thigh muscles and reported as showing changes which were diagnostic of periarteritis nodosa. The case was re-evaluated in the light of that diagnosis but gastrointestinal, genitourinary, and cardiac manifestations were not present and the greatest eosinophilia percentage reported was 4 per cent. The patient was given supportive therapy, including transfusions, but he lost weight visibly, went progressively downhill, and died on the eighty-fifth hospital day.

Discussion

DR. MAX TRUBEK: The patient was emaciated but did not appear cachectic, nor did he show any diagnositic evidences of an advanced malignancy. There was muscle tenderness and marked weakness. Because of the long-standing history of asthma, the leukocytosis, and the continued fever, the probability of periarteritis nodosa suggested itself. The precipitin test for trichinosis has proved unreliable in our experience as a definitive diagnostic test. We were led to discard it, in this instance also, along with a lot of confusing and irrelevant laboratory data, much of which could not be properly coordinated. The creatinuria was simply a manifestation of muscle wasting. The presence of eosinophilia would have given us a little more assurance for the diagnosis, but enough major components of the necessary criteria were present to justify muscle biopsy. The diagnosis of trichinosis was further discarded after histologic examination, and that of periarteritis nodosa seemingly confirmed. There were no clinical symptoms or laboratory confirmation suspicious of involvement of heart, kidneys, or gastrointestinal tract. The pulmonary shadows could fit into the description of recurrent eosinophilia pneumonitis which has been described as an occasional manifestation during this disease.

Dr. Appelbaum, will you discuss this case?

DR. EMANUEL APPELBAUM: I had the privilege of examining this patient on one occasion and I subscribed to the diagnosis of periarteritis nodosa. As you have heard, the outstanding clinical features in this case were the presence of peripheral neuropathy, marked cachexia and anemia, signs of chronic bronchitis and asthma, and evidence of sepsis as shown by the persistent low-grade fever, moderate leukocytosis, and an elevated erythrocyte sedimentation rate. In addition, there was albuminuria. It seemed to me that a diagnosis of periarteritis nodosa was justified on the basis of these features. The muscle biopsy showed the vascular lesions typical for periarteritis nodosa.

We have discussed the diagnosis of this difficult and remarkable disease on many occasions. It is my impression that these discussions have helped members of our staff in making the correct antemortem diagnosis of this disease in at least ten instances. I think this is a good record.

It is, of course, well known that periarteritis nodosa is a disease of diverse symptomatology, as would be expected, since the arterial system of any organ or set of organs may be involved. Moreover, the various organs may show different stages of the disease. These pathologic variations make the intravitam diagnosis very difficult. About twenty years ago Meyer and Brinkmann proposed a diagnostic scheme which included the combination of chlorotic marasmus, polyneuritis and polymyositis, gastrointestinal manifestations, and evidence of renal damage. More recently I suggested the formulation of a more comprehensive diagnostic pattern by adding to the Meyer-Brinkmann tetrad the evidence of diffuse vascular involvement, signs of infection, eosinophilia, and the presence of skin lesions. A presumptive diagnosis of periarteritis nodosa is, in my opinion, justified if a patient manifests many features of the diagnostic pattern or a few of the features in a marked degree. For an absolute diagnosis a skin or muscle biopsy is, of course, essential. As previously mentioned, our case had a few of the important diagnostic features and, in addition, yielded a positive muscle biopsy.

The cause of periarteritis nodosa remains obscure. There is, however, growing evidence in favor of an allergic basis for this disease. For instance, asthma has been noted in about 20 per cent of the cases of periarteritis nodosa. Varying grades of eosinophilia have been encountered in about 25 per cent of the cases. Vascular lesions indistinguishable from periarteritis nodosa have been produced in rabbits by the injection of serum or vaccine. The patient presented this morning had bronchial asthma but no eosinophilia. In this connection it may be noted that an attempt has been made to separate as a distinct clinical entity a group of cases with bronchial asthma associated with recurring pulmonary infiltrations and periarteritis nodosa.

In regard to the spinal-fluid report in this case, I believe that the slight pleocytosis and increase in protein are indicative of either central or peripheral nerve involvement.

The positive trichinosis precipitin test raises the interesting question of a possible relationship between trichinosis and periarteritis nodosa. This subject was discussed at one of our previous conferences. At that time I pointed out the close similarity between the two diseases and I called particular attention to a paper by Reimann. You will probably recall that this author reported one case with a muscle biopsy showing periarteritis nodosa lesions and the finding at nec-

ropsy of encysted trichinella in the muscles and another case with periarteritis nodosa and a positive precipitin test for trichinosis At the present time one can only speculate on the possible relationship between the two diseases

Dr Gelfand, you saw this patient What is your impression?

Dr Maxwell Gelfand When I first saw this patient about the fourth day of his admission to the hospital, the most striking findings were in his musculoskeletal system There was marked muscle weakness, tenderness, fatigue, stiffness and atrophy His hands showed swelling of the interphalangeal joints, limitation of motion, and wristdrop His ankles were swollen and also showed limited motion There was evidence of generalized wasting with considerable weight loss and temperature

Despite the absence of cutaneous manifestation and periorbital edema, I entertained the diagnosis of dermatomyositis and I suggested creatine and creatinine excretion studies and skin biopsy

Dr Otto Steinbrocker There is often a skin involvement in dermatomyositis The marked tenderness and elevated sedimentation rate suggested periarteritis nodosa under our observation

Dr Gelfand Several cases have been reported without skin lesions It depends on the stage of the disease in which the patient is seen

Presentation of Pathology

Dr Henry Spitz

Anatomic Diagnosis

Periarteritis (polyarteritis) nodosa heart, mesentery diaphragm, spleen, gallbladder, pancreas kidneys, testes, gastrointestinal tract, pectoral muscle
Atrophy of skeletal muscles
Infarcts of myocardium, healed and healing
Fibrinous pericarditis with organization
Arterio- and arteriolosclerosis of kidneys
Hypertrophy and dilatation of heart
Chronic passive congestion of liver, spleen, and lungs
Anasarca
Edema of lungs
Emphysema of lungs
Chronic bronchiolitis

The unusual feature of this case is the fact that the lesions found at autopsy were much more widespread than one would expect from the clinical picture The heart was enlarged and along the entire course of all the branches of the coronary arteries there were pinhead- to pea sized pale nodules No gross aneurysms, hemorrhages, or thromboses were found The nodules were separated by portions of grossly uninvolved vessel The myocardium was the seat of multiple fresh and healing infarcts The epicardium was covered by fibrinous exudate showing beginning organization In the mesentery vascular changes similar to those seen along the coronary arteries were numerous and widespread The kidneys showed gross evidence of arteriosclerosis which was more marked on the right than on the left

Microscopically, vascular lesions characteristic of periarteritis nodosa were found in almost every organ as indicated in the anatomic diagnosis In the heart they involved large and small branches of the coronary arteries whereas in the other organs mostly the small arteries and arterioles were effected The lesions showed several stages of development as described by Arkin * The arterioles in most of the organs showed recent necrosis and dense cellular infiltration of the media and adventitia as found in stage 2 The larger branches and occasional arterioles showed early or advanced organization and in some of the vessels old scar tissue replaced part of the circumference of the artery with destruction of the elastic elements Especially in the coronary arteries intimal fibrosis extended well beyond the point of the original damage to the blood vessel wall The kidney showed similar lesions extending from the interlobular to the afferent arterioles and occasionally into the glomeruli, causing necrosis, cellular infiltration, and fibrosis of several loops or the entire tuft In these areas of acute or subacute vascular changes there was a dense infiltrate in the interstitium of inflammatory cells, mostly lymphocytes, plasma cells, and occasional eosinophils The lungs showed emphysema, evidence of chronic passive congestion, and of long standing chronic bronchitis and bronchiolitis Eosinophils were quite prominent in the inflammatory infiltrate There were also scattered areas of pneumonia present in all lobes The brain showed no gross or microscopic evidence of periarteritis nodosa No traces of trichinosis were seen in the sections examined

* Arkin A A Am J Path 6 401 (1930)

JUST REWARD

It is encouraging to learn of a certain doctor who has just completed forty years of practice and is retiring with a comfortable fortune of $80,000 amassed through his courage, enterprise, initiative hard work professional ability, the careful investment of his savings, and the death of an uncle who left him $79,999

—*Exchange*

Additional Annual Reports

To the 1945 House of Delegates

Medical Society of the State of New York

PART IX

Legislation

The Council Committee, charged with the duty of studying legislation and putting forth the positions taken by the Society, was continued with the same personnel:

John L. Bauer, M.D., *Chairman*..... Brooklyn
Walter W. Mott, M.D..... White Plains
Leo F. Simpson, M.D..... Rochester

The Committee makes the following report as of February 11, 1945. A supplementary full report will be ready for the House of Delegates at its next session.

REPORT

The Council Committee on Legislation respectfully submits the following as a preliminary report.

Executive Officer.—As of September 1, 1944, the position of Executive Officer of our State Medical Society was left vacant by the resignation of Dr. Joseph S. Lawrence. As you know, he accepted the call of the A.M.A., to become the Director of the Council Committee on Medical Service and Public Relations. He is conducting, in Washington, D.C., a sort of research bureau on legislation affecting medical matters. This will prove to be very serviceable to most Senators and Congressmen as well as valuable to the interests of organized medicine. The State Medical Society was very fortunate to secure the services of Robert Roger Hannon, Ph.C., B.S., M.D., who has been secretary of the State Board of Medical Examiners, Department of Education, at Albany since 1939. He is a graduate of Johns Hopkins Medical School, as is Dr. Lawrence. He has had some military training, has been a student of Tropical Medicine, and has taught at the Peking Union Medical College, Peking, China, as well as at Johns Hopkins, Cornell Medical School, University of Rochester, and Albany Medical College. He has done medical research at Johns Hopkins, has been an associate of the Rockefeller Hospital, and also served as superintendent of the New York Hospital for several years. You can readily see that Dr. Hannon has come to us well equipped to comprehend and cope with our problems—the protection and improvement of the welfare and interests of the public, our patients.

About December 1, Dr. Hannon began his services with us. The Department of Education has not as yet filled his former position with them, so that he has been not only Executive Officer, but has been loyally helping out with some of his duties of his former position.

1945 Legislative Session.—As a rule, during the heated legislative session it has been possible for our Legislative Bureau at Albany to hire additional help to send out bills, bulletins, and other material to the county legislative chairmen and others. This year, so far, Dr. Hannon and Miss Briggs, the faithful secretary, have had to do practically everything themselves.

The 1945 legislative session opened on January 3. Almost at once there was a deluge of bills. The counties on the senatorial and Assembly districts were reapportioned, resulting in five additional Senators but no additional Assemblymen. Membership in the Senate and in the Assembly has undergone a considerable change, with many new faces.

The Temporary Commission.—The temporary commission to make studies, surveys, and investigations of programs for medical care of persons in the State, especially the needy sick, with an appropriation of $40,000, to terminate as of February 15, 1945, has been functioning this year. This commission includes two Senators and two Assemblymen and ten other members appointed by the Governor, namely, the chairman, Basil C. MacLean, a hospital administrator, four physicians, two laymen, and three nurses.

Senate Int. 2 and *Assembly Int. 66* are new bills to continue the commission until February 15, 1946, the Governor to appoint two more licensed physicians to the Commission.

The Chiropractic Bills.—*Senate Int. 94* and *Assembly Int. 98* were rushed to the front on January 8. Assemblyman Brees, of Endicott, is, as usual, a strong protagonist, as well as the introducer in the Assembly. For a number of years, Mr. Brees was the Public Relations Counsel of the Chiropractors and, as Assemblyman, their spokesman. Chiropractic is not supported by the Department of Education. No school or college, worthy of recognition, teaches it. The U.S. Army, Navy, and Marine Corps do not recognize or accept it, nor does any hospital of standing. Two thousand or more so-called chiropractors operating illegally in New York State make up the pressure group. How can they instruct in the treatment of diseases and disorders which do not even exist, according to the tenets of chiropractic? Will the 1945 Legislature give their stamp of approval, mislead the public as to chiropractic by recommending licensure and a separate five-man examining board for chiropractic, made up of four chiropractors and one physician? Will they permit lower examination requirements than all physicians have met before entering upon the practice of medicine? Has diagnosis proved unnecessary? To safeguard the public, the medical profession demands high standards—ever higher and higher. Every effort has been made to inform the public so that people, as properly informed individuals, could talk with their legislators or write to them.

The Public Relations Bureau.—The Bureau has been most active and helpful. They have sent out booklets, pamphlets, brochures, and letters to the press, to the legislators, to Chambers of Commerce, to fraternal organizations, and to every doctor in the State. It has a field representative, Mrs. Harold M. Fleming, who is traveling throughout the State contacting important persons in key positions, under the supervision of Dr. Hannon, Executive Officer, and Mr. Dwight Anderson, Director of Public Relations. The President of the State Medi-

cal Society, Dr Herbert H Bauckus, the Secretary, Dr Walter P Anderton, the editorial staff of our JOURNAL, Dr O W H Mitchell and his committee and subcommittees, Dr Ralph T B Todd, Dr David J Kaliski, in fact every officer and committee member and bureau have given unstintingly of their time and effort in order that there might be enough informed people to contact our Legislature, so that legislators might not be led to believe that there is a popular demand for chiropractic, but rather that the demand comes from the chiropractors themselves Will the legislators continue to support a continuance of "Equal standards of education and training for all who would practice upon the human body, regardless of what they call themselves"?

Other Bills —Some of the bills introduced have had to do with workmen's compensation, with reclassification of nurses, with tuberculosis hospitals, with Health Insurance Bills, such as Joseph's, Jack's and Austin's, with emergency milk supply measures, with construction of an adequate Veterans' Hospital in Brooklyn, with provisions for costs of emergency blood transfusions with inspections of laboratories outside New York City with the length of term or size of State Regents, with forged narcotic prescriptions, with hospital liens with permitting hospitals to practice medicine with another Commission on Physical Fitness, with a rental bill on commercial space (Dr Hannon at tempting to include doctors' offices) with the inclusive costs of medical examinations of intoxicated drivers, with venereal disease provisions, with home relief payments with the enrichment of flour as to vitamins and minerals etc

On Friday, February 16, at Hotel Ten Eyck in Albany our *annual conference of the Chairmen of the Legislative Committees of the County Medical Societies* was held

Will every doctor turn to the December 2, 1944, *Journal* of the A M A, and on pages 915 and 916 [illegible] chiropractic calling

In conclusion we wish to thank the Woman's Auxiliaries of the State and county medical societies for the active cooperation which they showed not only during the Legislative session but throughout the entire year The great possibilities of the assistance of the doctors' wives have been like a dream come true

PART XIII

Report of the Counsel

To The House Of Delegates, Gentlemen

Your Counsel herewith submits his report of the activities of the Legal Department of the Medical Society of the State of New York for the period from February 1, 1944 up to and including January 31 1945

Necessarily, in making a report of this character, brevity must be sought, with the result that only the barest outline of the work done in our Department can be given

During the reporting period your Counsel's office staff has remained intact The splendid work of my associates Mr Thomas H Clearwater, the attorney for the Society, and of Mr John J DeLuca has continued During the summer of 1943, Mr Robert J Bell, who for nearly ten years was associated with your Counsel and his predecessor, the late Mr Lorenz J Brosnan entered the service of the United States Navy Mr Bell's active service in the Navy continued for more than one year and a half and during that time he was promoted to the rank of lieutenant Mr Bell has recently been retired from the Navy to inactive duty, and he has rejoined your Counsel's staff and will resume his efficient work

We cannot leave this subject without paying tribute to the splendid spirit of industry, loyalty, and devotion manifested by your Counsel's entire staff, both legal and clerical

In making his report your Counsel adheres to the convenient category employed in previous years whereby his activities have been divided into three main divisions (*a*) the actual handling of malpractice actions before courts and juries and in the appellate tribunals, (*b*) counsel work with officers, committees and individual members of the Society, and (*c*) legislative advice and activities

Litigation —In previous years your Counsel and his predecessors called to the attention of the members the dangers attendant upon careless, hasty, and unjustified criticism by one physician of the work of another, which gives rise to many malpractice actions We feel that it is important to do so again at this time Such criticism and such comments by one physician upon the work of another, even though not maliciously made and with no intent to instigate litigation, frequently plant in the mind of a patient the idea of a malpractice action Experience shows us that many malpractice actions originate from such careless remarks

Likewise, we again call attention to the ever-present hazard of a malpractice action to the practicing physician It must be remembered that in malpractice actions the rights of physicians are in the hands of lay jurors who may often be influenced by its ma or not

In this connection it should be noted that your Society, having taken cognizance of these conditions years ago, has sponsored a group plan of insurance, the splendid record of which has continued Although a great percentage of the members carry such insurance, during past years as well as in every preceding year a substantial number of your members have found themselves confronted with the defense of malpractice actions without the benefits of this insurance Invariably, such physicians regret their failure to have taken advantage of the Group Plan, which has now been in successful operation for nearly twenty-five years The Plan merits the loyal support of every member of the Society

We wish to mention at this point the Yorkshire Indemnity Company, the carrier under the Group Plan for over nine years It has in every way met all of its obligations and has continued to demonstrate its enthusiastic support of the successful operation of the Group Plan Mention should be made of the excellent cooperation furnished by Mr. Horace Crowell, Jr, assistant secretary of

the Yorkshire Indemnity Company, and in charge of its Claim Department. Your Counsel and his associates are in frequent conference and consultation with him. We feel that mention should also be made of the excellent cooperation of Mr. Alan O. Robinson, vice-president of the said Company, and of Mr. Thomas J. Finnegan and Mr. Lawrence S. Cunningham, of its staff.

We likewise record our appreciation of the splendid work of your Insurance Committee under the chairmanship of Dr. J. Stanley Kenney. We have conferred on a number of occasions during the reporting period with Dr. Kenney in relation to the problems of the Insurance Committee. It should be noted that during this period the Insurance Committee has made an extensive survey of the insurance field with reference to other carriers who might assume the obligations of the Group Plan. We refer the membership to the report of the Insurance Committee which sets forth the findings of its survey.

We have also conferred with the authorized indemnity representative of your Society, and with his office staff, on various matters pertaining to the operation of the Group Plan.

With these preliminary statements, we note that there were initiated within the present reporting period 90 cases. This figure is practically the same as 87 cases reported a year ago, but is substantially lower than the figures reported in previous years. It must be taken into consideration that many physicians are members of the armed forces, and undoubtedly upon their return to private practice, cases which have been suspended for the duration of the war may still be instituted against them, and consequently, after the cessation of hostilities and return of physicians to private practice from the armed forces, it must be anticipated that these figures will show a substantial increase. No one can predict with accuracy what the transitional years following the war will bring, but an increase of litigation in general must reasonably be expected.

The 90 cases referred to do not include a number of claims instituted against physicians during the reporting period, most of which are still outstanding and in some of which suits may actually be brought. The preventative work done by your Counsel and his office staff is of equal importance with the actual work of litigation. Throughout the year we are in frequent consultation with claimants and their attorneys and often we have been successful in demonstrating to them that no meritorious claim exists, so that many of these claims do not actually develop into law suits.

Table 1 shows that during the present reporting period we disposed of 84 cases. Thirty-five of these cases were settled and 49 terminated successfully in favor of the physician. During the reporting period there were no judgments for the plaintiff against any physician. We note from Table 1 that there were pending, as of January 31, 1945, 370 cases.

Counsel Work.—During the period of this report your Counsel and Mr. Clearwater have attended the Annual Meeting of the Society and the regular meetings of the Council of your Society and have conferred with members of such bodies upon numerous legal problems which have presented themselves.

During the reporting period there have been many changes in the administration of your Society, including the changes necessitated by the untimely deaths of Dr. Peter Irving, Secretary of the Society, and of Dr. Edward C. Podvin, the Assistant Secretary. Your Counsel has been repeatedly in consultation with respect to the numerous legal problems which presented themselves attendant upon such changes. Your Counsel conferred with the Council and with the Board of Trustees on various occasions with respect to the preparation and execution of the contract entered into between the Society and Dr. David J. Kaliski, Director of the Bureau of Workmen's Compensation. Our Counsel also handled the preparation and execution of the contracts entered into between the Society and Dr. Robert R. Hannon, Executive Officer, and with Mr. George B. Farrell.

Your Counsel, acting with the Committee on Bylaws, has examined various proposed amendments to the Constitutions and Bylaws, both of your Society and of a number of component county medical societies, and has rendered advice and made suggestions in connection therewith.

Your Counsel has conferred at various times with members of the various committees and members of the Board of Trustees on many phases of their work and activities.

Your Counsel was constantly in touch by telephone and correspondence with the late Dr. Peter Irving, Secretary and General Manager, and since Dr. Irving's death with Dr. Walter P. Anderton and with Mr. Dwight Anderson in connection with the many questions that frequently arise in their work. In addition, your Counsel receives frequent requests for opinion, both oral and in writing, on legal problems which it would be impossible to refer to in other than a very sketchy way within the limited space of this report. A few of the matters on which advice has been given during the last year are the following:

Responsibility of the county society in connection with criminal charges of bortion; intravenous injections by nurses; consent to surgery upon minors; legality of sterilization operations; birth

TABLE 1.—NUMBER OF SUITS INSTITUTED AND DISPOSED OF IN 1944–1945

	Instituted 1944–1945 (12 months)	Disposed of 1944–1945 (12 months)
1. Fractures, etc.	14	7
2. Obstetrics, etc.	7	10
3. Amputations	1	2
4. Burns, x-rays, etc.	16	12
5. Operations: abdominal, eye, tonsil, ear, etc.	19	21
6. Needle breaking	5	1
7. Infections	5	7
8. Eye infections	3	2
9. Diagnosis	8	11
10. Lunacy commitments	...	1
11. Unclassified-medical	12	10
Totals	90	84
Actions for death	6	11
Infants' actions	4	8
Totals	10	19
How Disposed of		
Settled	...	35
Terminated in favor of defendant physician	...	49
Judgment for plaintiff	...	..
Total		84
Pending on January 31, 1945	370	

certificates therapeutic abortions advice regarding medicolegal treatises contract between physician and corporation hospital's right to exclude physicians from staff disclosures of confidential information to governmental agencies, practice of medicine by interns, responsibility of physicians for subsequent care of hospital ward patients, legality of postmortem cesarean operations, necessity for surgical assistants at operations, physician's testimony in matrimonial action, disposition of report of physical examination, forms of consents for operations, responsibility of surgeon for acts of hospital subordinates and liability of physician for malpractice during service in armed forces

It should be noted that daily, either by personal inquiry at your Counsel's office or by telephone calls, various members of the Society seek advice and assistance on various problems arising out of their relations with their patients Most of these inquiries present emergency situations which can not be handled by correspondence, but they actually involve a considerable amount of time and work

Legislative Advice and Activities—During the past year your Counsel and Mr Clearwater have conferred with numbrous persons representing varying points of view in connection with proposed changes to the law regulating the practice of medicine A considerable part of this work has been devoted directly to the recent changes in the law regulating fee splitting and various proposed further revisions of the law with respect thereto Your Counsel and Mr Clearwater have frequently conferred with the present Executive Officer of the Society and his predecessor regarding legislative matters We have in recent months and also during the time subsequent to the reporting period conferred frequently with your Society's officers and with Mr Dwight Anderson regarding various phases of opposition to the chiropractic bill pending before the Legislature at the time of writing, and in addition, Mr Martin recently attended the public hearing upon said bill before the Legislature Mr Clearwater attended the annual conference of the Council Committee on Legislation with the Chairman of the County Society Legislation Committees held at Albany

Conclusion—Your Counsel, in closing this report, wishes to record his appreciation for the work of his own staff, and also to acknowledge with grateful thanks the advice and assistance of your Society, which has helped us both in Court and in consultation, in the defense of malpractice actions Without such cooperation and assistance it would not have been possible for your Counsel to have obtained the results shown in this report

Respectfully submitted
WILLIAM F MARTIN, *Counsel*

Amendments to Constitution and Bylaws

To the House of Delegates Gentlemen

The Committee on Constitution and Bylaws, in the interests of the more efficient discharge of the administrative functions of the Society, hereby recommends to the House of Delegates for its favorable consideration the following amendments to the Bylaws

A In Chapter VII, Section 6 of the Bylaws, delete the second and third sentences, which read as follows "These minutes shall be copied from a stenographer s notes with such deletion only as will not modify, alter, or becloud the history of the actions of the said bodies The stenographer s typewritten copy shall be preserved until ordered destroyed by the House of Delegates" Insert the following language in place of the deletion "He shall perform such other duties as may be prescribed from time to time by the House of Delegates or the Council" amending said section so as to read as follows

"Section 6 The Secretary shall attend all meetings of the Society the House of Delegates, the Council, the Board of Trustees and the Board of Censors, and shall keep minutes of their respective proceedings He shall perform such other duties as may be prescribed from time to time by the House of Delegates or the Council'

B In Chapter VII, Section 7 of the Bylaws, delete the following words from the first sentence thereof "be responsible for and have general charge of the Society's offices and the employees therein He shall be" Insert in place of said deletion the following language "countersign all checks issued by the Treasurer on funds of the Society, he shall be"

Section 7 The Secretary shall countersign all checks issued by the Treasurer on funds of the Society, he shall be the custodian of the seal of the Society, and of all books of records and papers belonging to the Society, except such as properly belong to the Treasurer, and shall keep an account of and promptly turn over to the Treasurer all funds

of the secretaries of the county societies, he shall keep a proper register of all the registered physicians of the State by counties He shall aid the officers of the District Branches in the organization and improvement of the county societies and the extension of the power and influence of the Society He

and Board members of their election, and committees of their appointment and duties He shall affix the seal of the Society to all credentials issued to members of the Society elected by the House of Delegates and to such other papers and documents as may require the same He shall make an annual report to the House of Delegates He shall supply each county society with the necessary blanks for making their annual reports to this Society Acting in cooperation with the Council, he shall prepare and issue all programs He shall be a member of the Council He shall be ex officio a member of all boards and committees without vote He shall record the name and date of admission of each member of the Society"

C Repeal entire Chapter VIII of the Bylaws entitled "Direction of Activities"

D In Chapter XVIII, Section 2 delete the following "given at a previous annual meeting of the House of Delegates, and before the same can be acted upon it shall be published once before the annual meeting in the", and insert in place of said

deletion the following: "published one month before the annual meeting in the," so that said Section 2 of Chapter XVIII shall read as follows:

"Section 2. Notice of the proposed amendment shall be published one month before the annual meeting in the official bulletin or journal of the Society."

Respectfully submitted,
THOMAS M. BRENNAN, M.D., *Chairman*
GEORGE W. KOSMAK, M.D.
WALTER P. ANDERTON, M.D.

Reports of the District Branches

First District Branch

To the House of Delegates; Gentlemen:

The thirty-eighth Annual Meeting of the First District Branch of the Medical Society of the State of New York was held Tuesday, October 24, 1944, at Bellevue Hospital, 28th Street and First Avenue, New York City.

Dr. Peter Irving and the staff accomplished an excellent piece of work in facilitating the activities involved in producing such an excellent one-day clinic for the First District Branch.

A guide map of the entire hospital was part of the program and greatly assisted in quickly locating the designated buildings and various clinics.

We are greatly indebted to Dr. Wilbur S. Tillett, Third Medical Division, for the splendid clinic arrangement.

Following is the program presented:

Medicine, First (Columbia) Medical Division—conference with presentation and discussion of cases by Dr. I. Ogden Woodruff and staff; clinicopathologic conference by Drs. I. Ogden Woodruff and David M. Spain and staff; ward rounds with presentation and discussion of selected cases by Dr. I. Ogden Woodruff and staff.

Chest Diseases—ward rounds (medical) with Dr. J. Burns Amberson, Second (Cornell) Medical Division; and ward rounds with Dr. Asa Lincoln and staff.

Neurology—conference on "Arachnoiditis Following Spinal Anesthesia" and ward rounds, Dr. Foster Kennedy and staff, Third (New York University) Medical Division. The following round table conference with presentation of cases was heard: "Penicillin in the Treatment of Subacute Bacterial Endocarditis," by Dr. William S. Tillett; "Evaluation of the Surgical Treatment of Essential Hypertension," by Dr. Herbert Chasis; "The Clinical Use of Demerol," by Dr. R. C. Batterman; "The Treatment of Thyrotoxicosis," by Dr. Elaine P. Ralli; "The Treatment of Acute Myocardial Infarction," by Dr. Arthur C. DeGraff.

Pediatrics—presentation and discussions: "Care of the Premature Infant," by Dr. J. Lewis; "The Treatment of Pneumonia," by Dr. R. Niemer; "The Problems of Adolescence," by Dr. Harry Bakwin; "Poliomyelitis," by Dr. Alfred Fischer; "Childhood Tuberculosis," by Dr. Edith Lincoln.

Syphilology and Dermatology—"Recent Advances in the Treatment of Syphilis," by Dr. Evan Thomas; "Recent Advances in the Treatment of Gonorrheal Infection," by Maj. Ruth Thomas, U.S.P.H.S.; "The Treatment of Industrial Dermatoses," by Dr. Frank Combes, Fourth (New York University) Medical Division; "Treatment of Hyperthyroidism with Thiouracil," by Dr. Harry A. Solomon; "Newer Developments in the Treatment of Meningococcic Meningitis," and "Penicillin in the Treatment of Empyema," by Dr. Emanuel Appelbaum; "The Importance of Heredity in Medical Disorders," by Dr. Max Trubek; and "Chrysotherapy in Rheumatoid Arthritis," by Dr. Otto Steinbrocker.

Surgery, First (Columbia) Surgical Division—operations by Drs. C. J. MacGuire, Roderick V. Grace, Gaston A. Carlucci, and Phillip C. Potter; ward rounds with Drs. Walter W. Fischer, Vincent Hurley, Wallace Sheridan, and Louis Davidson, Second (Cornell) Surgical Division; operations and staff conference by Dr. Guilford Dudley and staff.

Urology—operations by Dr. Howard Jeck and staff; Third (New York University) Division; abdominal and general surgery by Drs. W. Howard Barber, Hippolyte M. Wertheim, Thomas J. Galvin, Victor Carabba, and Samuel Standard; fractures—rounds with demonstrations of various methods of treatment by Drs. Irwin E. Siris and John A. Lawler.

Surgical Research—lantern slide demonstration and studies of surgical convalescence by Drs. CoTui and George R. Gerst; surgical staff conference, Dr. Arthur M. Wright, director.

Anesthesia—therapeutic nerve block: incidence of postoperative anesthetic complications; reflex circulatory derangement during surgery; anesthetic clinics—therapeutic nerve block: (*a*) lumbar, (*b*) sympathetic, and (*c*) paravertebral, suprascapular for painful shoulder and other cases available, presented by Dr. E. A. Rovenstine, director of anesthesia.

Ophthalmology—grand rounds with Drs. Daniel B. Kirby, Donald W. Bogart, Fourth (New York University) Surgical Division Adult Surgical Service; operative clinic with Drs. Arthur McQuillan, William Hinton, Kenneth Lewis, and Lester Breidenbach.

Orthopedic Service—ward rounds with Drs. Arthur Krida, John McCauley, William Walker, and Albert Schein.

Children's Surgical Service—operative clinic with Drs. Fenwick Beekman, Philip Allen, and Charles W. Lester.

During the business meeting, following the luncheon, the following officers were elected: president, Dr. Scott Lord Smith, Poughkeepsie; first vice-president, Dr. Harold F. Morrison, Tuxedo Park; second vice-president, Dr. Stephen R. Monteith, Nyack; secretary, Dr. I. J. Landsman, Bronx; treasurer, Dr. Henry W. Miller, Brewster.

Dr. Herbert H. Bauckus, President of the Medical Society of the State of New York, addressed the assembly. His topic was "Medical Insurance."

The First District Branch wishes to express its deep gratitude and sincere appreciation, through the Director, Dr. Herman Jacobs, to Bellevue Hospital and the men connected with the various services, for the painstaking efforts and resultant splendid arrangements and excellent luncheon

which made this meeting a most successful and outstanding event

Respectfully submitted,
JAMES G MORRISSEY, M D

February 15, 1945

Second District Branch

To the House of Delegates, Gentlemen

The thirty-eighth annual meeting of the Second District Branch of the Medical Society of the State of New York was held on October 25, 1944, at the United States Naval Hospital, at St Albans

An opportunity was given those who had not previously done so to inspect the hospital facilities Small groups were conducted through the hospital by members of the medical staff, nurses, and Waves At 11 00 A M the visitors and their hosts gathered in the auditorium, where four very interesting papers were read by members of the hospital staff The first paper, "Transportation of the Naval Wounded," was read by Capt Frederick A Jostes, who had recently returned from the South Pacific, where he was in charge of this work The second was on "The Repair of Peripheral Nerves in Naval Casualties," by Lt Comdr Thomas I Hoen, the third, "The Treatment of Meningitis, Including the Use of Penicillin," was by Comdr John K Durkin and the fourth "The Treatment of Delayed and Nonunion of Fractures in Naval Casualties," by Capt Herbert C Fett All of these papers were of timely interest and were well received

Following the morning session, luncheon was served in the officers' mess hall, after which the physicians returned to the auditorium

At the afternoon session the group was addressed briefly by our host, Capt Lester L Pratt the commanding officer, after which a brief executive session was held Dr Everett C Jessup, of Roslyn, was elected president and Dr Charles C Murphy, of Amityville, second vice president It was unanimously voted that Dr John B D'Albora be retained as first vice president and that he be advanced to the presidency of the organization at the first executive session following his discharge from the army

After a brief greeting and address by Dr Herbert H Bauckus, President of the Medical Society of the State of New York, the scientific meeting was resumed

The afternoon program, a symposium on tuberculosis, consisted of the following papers "The Problem of Rehabilitation of the Tuberculous Patient," by Dr James R Reuling, president of the Queensboro Tuberculosis and Health Association, "Medical Management of Tuberculosis," by Dr George G Ornstein, associate professor of medicine, New York Medical College, and "Modern Concepts of Surgical Management of Pulmonary Tuberculosis" by Dr Herbert C Maier, director of surgery, Triboro Hospital All these papers were well received

A moving picture of the invasion of Tarawa closed one of the most successful meetings our branch has ever held For this success we are largely indebted to our host Captain Pratt, and his staff, who so wholeheartedly participated in the program

As at last year's meeting, after our expenses were met there remained a balance which was forwarded to the American Red Cross, U S Naval Hospital, St Albans Chapter The amount of the check this year was $277 (This amount was contributed entirely by the Second District Branch—*Editor*)

Respectfully submitted,
FRANCIS G RILEY, M D, *President*

February 21, 1945

Third District Branch

To the House of Delegates, Gentlemen

In addition to the May meeting of the Executive Committee held in Albany to plan the program, the principal activities centered around the annual meeting This was held at the Potts Memorial Institute, Livingston Columbia County, on Thursday, September 21, 1945 The scientific program consisted of the following presentations "Rehabilitation of the Tuberculous," by Dr Harry A Pattison, Director, Potts Memorial Institute, "Headache," by Dr Harold G Wolff, associate professor of medicine, Cornell University Medical College, New York City, "Therapeutic Applications of Penicillin," by Dr Ward J MacNeal, professor of bacteriology, New York Post-Graduate Medical School, and "Purpose, Organization, and Function of the New York Guard," by Martin DeForest Smith, Maj N Y G, Surgeon, 3rd Brigade

The annual business meeting was held and the following officers were elected to take office for the following two years president Dr John L Edwards, Hudson, first vice-president, Dr Fred C Holcomb, Kingston, second vice-president, Dr Harry Golembe, Liberty, secretary, Dr William E Rausch, Albany, and treasurer Dr William M Rapp, Catskill

The annual dinner followed the meeting and was also held at the Potts Memorial Institute, through the courtesy of Dr Harry A Pattison Dr Herbert H Bauckus, President of the Medical Society of the State of New York, addressed the group on the present state of medical [illegible] State of New York

the annual meeting was adjourned *sine die*

Respectfully submitted,
STEPHEN H CURTIS, M D, *President*

February 15, 1945

Fourth District Branch

To the House of Delegates, Gentlemen

The Fourth District Branch of the Medical Society of the State of New York held its thirty-eighth annual meeting on October 3, 1944, at the [illegible] York Sanatorium, [illegible] Control of Tuberculosis in Northern New York," and Dr Clarence J Tidmarsh, Professor of Medicine, McGill University, Montreal, spoke on "Gastric [illegible]

[illegible] dent, Dr Denver M Vickers, of Cambridge, first vice-president, Dr G S Pesquera of Mt McGregor second vice-president, Dr F Leslie Sullivan, of Scotia, secretary, Dr Joseph Geis, of Lake Placid, treasurer

Dr [illegible] the Medical Society [illegible] ddressed the meeting [illegible], a recently

elected member of the Board of Regents from the fourth district, also addressed the meeting and was also guest speaker.

Respectfully submitted,
F. LESLIE SULLIVAN, M.D.

Fifth District Branch

To the House of Delegates; Gentlemen:

The newly elected officers of the Fifth District Branch are as follows: president, Dr. Dan Mellen, Rome; first vice-president, Dr. Sherman M. Burns, Oswego; second vice-president, Dr. H. Dan Vickers, Little Falls; secretary, Dr. James E. McAskill, Watertown; and treasurer, Dr. O. D. Chapman, Syracuse.

The presidents of the component county societies are: Herkimer—Dr. D. F. Aloisio, Herkimer; Jefferson—Dr. Leon L. Samson, Alexandria Bay; Lewis—Dr. David J. O'Connor, Croghan; Madison—Dr. Arthur S. Broga, Oneida; Oneida—Dr. Frederick M. Miller, Jr., Utica; Onondaga—Dr. Dwight V. Needham, Syracuse; and Oswego—Dr. Harold J. LaTulip, Oswego.

A meeting of the officers was called in Rome, New York, in June to make arrangements for the annual meeting. A symposium on tuberculosis was suggested as the feature of the program. This particular topic had not been discussed for some time and was felt to be opportune. Col. A. J. Canning very kindly allowed us to have our meeting at Rhoads Hospital, Utica, and also made preparations for dinner.

The Thirty-Eighth Annual Meeting of the Fifth District Branch of the Medical Society of the State of New York was held at Rhoads General Hospital, Utica, on Tuesday, September 19, 1944. The Auxiliary was entertained and they reported a most enjoyable time. The following scientific program was presented:

2:00 P.M.—movies: "Psychiatry in Action."

2:45 P.M.-5:30 P.M.—"Symposium on Tuberculosis," medical discussion by Dr. S. Eric Simpson, Watertown; surgical discussion by Dr. Ethan Flagg Butler, Elmira; discussion of chest x-ray in industry by Dr. William C. Jensen, Utica; and a lecture entitled "Tuberculosis in Military Service," by Capt. Daniel J. Feldman, Utica.

6:00 P.M.—Dinner, followed by an address by Dr. Herbert H. Bauckus, of Buffalo, President of the Medical Society of the State of New York.

8:00 P.M.—"Rehabilitation of the War Veteran," by Dr. Roy B. Woodward.

The Executive Committee of the Fifth District Branch donated a prize of $25 to that county woman's auxiliary from which county there was the largest percentage of physicians registered at the meeting. The Auxiliary of the Oneida County Society was the winner of the prize.

Respectfully submitted,
DAN MELLEN, M.D., *President*

Sixth District Branch

To the House of Delegates; Gentlemen:

The thirty-eighth annual meeting of the Sixth District Branch of the Medical Society of the State of New York was held on September 28, 1944, at the Arnot-Ogden Memorial Hospital in Elmira with an attendance of over 100.

The program of the morning session included a discussion of "The Use of Thiouracil in the Treatment of Hyperthyroidism" by Dr. F. S. Hassett, attending physician, Arnot-Ogden Memorial Hospital and St. Joseph's Hospital, in Elmira, and a lecture on "Protruded Intervertebral Discs: Their Diagnosis and Treatment" by Dr. Wallace B. Hamby, professor of neurologic surgery and assistant professor of neurology, University of Buffalo School of Medicine.

During the afternoon session Dr. Paul C. Clark, assistant professor of clinical medicine, Syracuse University College of Medicine, spoke on "Penicillin Therapy," and Dr. Ethan Flagg Butler, of Elmira, discussed "Surgical Treatment for Pulmonary Tuberculosis."

Dr. Herbert H. Bauckus, President of the Medical Society of the State of New York, addressed the meeting at luncheon.

Respectfully submitted,
CLIFFORD F. LEET, M.D.

Seventh District Branch

To the House of Delegates; Gentlemen:

The thirty-eighth annual meeting of the Seventh District Branch was held on Wednesday, September 27, 1944, at the United States Naval Hospital in Sampson. Capt. Claude Carr, Commandant, and his staff were our hosts. The total attendance was 163. Among those present were members of several county societies outside the Seventh District Branch. A representative from St. Albans Naval Hospital also attended the meeting.

The morning session was provided by our hosts. It began with a short address of welcome by Captain Carr, who then turned over the meeting to Lt. Comdr. H. W. Retan. The first part of the program was devoted to sound movies depicting the Navy's experiences in the Pacific. A series of papers was presented by members of Captain Carr's staff. These were on "Penicillin Experiences at the U.S. Naval Hospital, Sampson"; surgical: Comdr. Charles C. Thomas, (MC), USNR, Chief of Surgery; medical: Comdr. Arthur J. Horton, (MC), USNR, Chief of Medicine; and South Pacific experience: Comdr. Eugene F. Foy, (MC), USNR, recently returned from active service. "Tropical Diseases and Their Problems for the Civilian Practitioner" was presented by Lt. Comdr. Lopo de Mello, (MC), USNR, Dermatologist and Malaria Control Officer, U.S. Naval Hospital, Sampson.

Dinner was served at noon in the mess hall, with the compliments of the Commanding Officer and his staff.

Dr. Knickerbocker, president of the Seventh District Branch, presided over the afternoon session. Dr. Herbert H. Bauckus, President of the Medical Society of the State of New York, introduced the officers of the State Society. A paper on "Blood Proteins and Body Metabolism—Influence of Amino Acids Given Parenterally" was presented by Dr. George H. Whipple, Dean and professor of pathology, and Dr. Sidney C. Madden, associate professor of pathology, University of Rochester School of Medicine and Dentistry. Another on "Postgraduate Training for Physicians Returning from War Service" was read by Dr. Albert W. Snoke, acting director of Strong Memorial Hospital, Rochester, and Dr. John S. Lawrence, acting professor of medicine at the University of Rochester

School of Medicine and Dentistry A third paper entitled "Practical Use of Electroencephalography" was read by Lt Minter M Jackson, H-V(S), USNR, Psychologist, U S Naval Hospital, Sampson

All the papers were concise, snappy, and much appreciated by the audience A short talk by the Hon John Tabor, member of Congress from this district, showed us that he was with and for the medical profession and opposed to any governmental interference that would in any way hamper the individualistic practice of medicine, as would be the case if the Wagner Murray-Dingell Bill were enacted

A rising vote of thanks was tendered to Captain Carr and his staff for their hospitality and share in making this such a successful meeting

Respectfully submitted,

H J KNICKERBOCKER, M D , *President*

February 22, 1945

Eighth District Branch

To the House of Delegates, Gentlemen

The thirty ninth annual meeting of the Eighth District Branch was held at the Prospect House, Niagara Falls, on Thursday, October 5, 1944 There were 100 members present

The morning session began at 10 A M with Dr Reuben J Erickson, of Albany, giving a most interesting and instructive talk on "Pulmonary Tuberculosis—Early Diagnosis and Differential Diagnosis"

The second paper was given by Dr Percy S Pelouze, of Philadelphia, on "Gonorrhea from the Viewpoint of the General Practitioner" Dr Pelouze's talk was very instructive and was greatly enjoyed by members present

After luncheon the meeting was addressed by Mr Dwight Anderson Publicity Director, and Dr Carlton E Wertz Dr Herbert H Bauckus State President, also spoke to the members on the loss to our Society by the deaths of Bishop Duffy, of Buffalo, and Al Smith, former Governor of New York State Dr Bauckus spoke at length on the medical plans as an answer to the socialization of medicine

The afternoon session was continued with a talk by Dr Frederick N Marty, of Syracuse, on "Penicillin Therapy" This was followed by a talk by Dr James L Poppen, of the Lahey Clinic, Boston, on "Surgical Treatment of Hypertension" These papers were both fully discussed by members present

The absence of Dr Peter Irving and Dr Joseph Lawrence was noted with regret

Respectfully submitted,

PETER J DI NATALE, M D , *President*

March 2, 1945

Postgraduate Medical Education

Programs arranged by the Council Committee on Public Health and Education of the Medical Society of the State of New York are published in this section of the JOURNAL. *The members of the committee are Oliver W. H. Mitchell, M.D., Chairman, (428 Greenwood Place, Syracuse); George Baehr, M.D., and Charles D. Post, M.D.*

Cancer Teaching Day in Buffalo

A CANCER teaching day will be held in the Hotel Statler, Buffalo, on April 26. The program will be presented under the auspices of the Medical Society of the County of Erie, the Buffalo Academy of Medicine, the Eighth District Branch of the State Society, the University of Buffalo, School of Medicine, the Medical Society of the State of New York, and the New York State Department of Health, Division of Cancer Control.

The afternoon meeting will be called to order at 4:00 P.M. Dr. A. H. Aaron, president of the Medical Society, County of Erie, will deliver the opening remarks. Dr. Donald Guthrie, surgeon-in-chief, Robert Packer Hospital, Sayre, Pennsylvania, will speak on "Diagnosis and Surgical Treatment of Carcinoma of the Breast." Dr. Lloyd F. Craver, attending physician at Memorial Hospital, New York City, will then discuss "What Can the General Practitioner Do About Lowering Cancer Mortality?"

General discussion will be invited.

The evening meeting will be held at 8:00 P.M. Cochairmen of the meeting are Drs. John W. Kohl and Leon H. Smith. The program will consist of two lectures: "The Diagnosis and Curability of Intraoral Cancer," by Dr. Hayes Martin, attending surgeon, Memorial Hospital, New York City; and "Carcinoma of the Colon," by Dr. John H. Garlock, attending surgeon, Mt. Sinai Hospital, New York City.

Penicillin Therapy—St. Lawrence and Jefferson Counties

POSTGRADUATE instruction arranged by the Council Committee on Public Health for the St. Lawrence County Medical Society will be given on May 10 at 1:15 P.M. at the A. Barton Hepburn Hospital, Ogdensburg. Dr. Frank L. Meleney, associate professor of clinical surgery, College of Physicians and Surgeons, Columbia University, New York City, will deliver a lecture entitled "Penicillin Therapy." On May 10 at 6:00 P.M., at the Black River Valley Club, Watertown, Dr. Meleney will deliver the same lecture to the Jefferson County Medical Society.

This instruction is provided by the Medical Society of the State of New York with the cooperation of the New York State Department of Health.

REHABILITATION OF THE WAR DEAFENED

The Army is ready for the men who lose their hearing in this war. Three rehabilitation centers have been established—at Butler, Pennsylvania, Chickasha, Oklahoma, and Santa Barbara, California—to aid the soldiers deafened by the blast of explosives, head wounds, sudden altitude changes in flying, or by acute illness.

It takes six to ten weeks for one of the deafened soldiers to reach one of the hospitals from the front lines, and during that time he may have become worried and depressed about his condition. Therefore, in addition to diagnosis and treatment of deafness, the rehabilitation center otologist must deal with psychologic aspects of the injury. A cheering pamphlet, illustrated by Maj. Munro Leaf (creator of Ferdinand the Bull), is given to the soldier before he leaves the war zone. It explains in humorous cartoons what will be done for him.

On arrival at the center, the soldier is thoroughly examined, with special attention to vision. The hearing loss is determined, and an appropriate mechanical hearing aid is prescribed.

All this takes about a week, after which time he is permitted to go home for a furlough before starting his two-months' training period. In the meantime, the Red Cross has notified his family of his ailment and has suggested how to make him feel at ease.

Thirty-five half-hour lessons in lip reading, twice a day, are the main course in the training center's rehabilitation curriculum. In addition to straight conversation, the men are taught by motion pictures how lip reading can enable them to cope with any of life's situations. Loss of hearing has also caused most of the afflicted men to speak oddly, with slurred consonants and dropped vowels. These defects are corrected by recordings and individual and group lessons.

The ordinary hearing instrument costs the government about $150 with an extra cost of $3 to $4 a month to maintain the 45-volt battery.

Some soldiers will need a 90-volt battery device the rest of their lives, at a cost of $20 a month to the government.—*Modern Medicine*

Medicolegal

William F Martin, Esq
Counsel, Medical Society of the State of New York

Recovery for Mental Anguish

IT HAS long been the law of this state that there may be no recovery at law in a negligence action for mere fright or shock alone occasioned by negligence. A case defended by your Society's counsel a few months ago is an interesting example of the practical application of that rule.*

It seems that a child was born in one of the hospitals in New York City which was in need of immediate special care to save its life. Those in charge rushed to see that the necessary steps were taken so that such care was provided the child was placed in an oxygen crib and its life was in fact, saved. There was some inevitable confusion, in the course of which, by inadvertence, it was noted on the record that the child was a girl, although the fact was that it was a boy. Consequently the parents were first told the child was female, and it was not until some days later that they were correctly informed that the sex was male.

Later an action was instituted against the hospital to recover damages in the sum of $25,000. The complaint alleged in substance that the plaintiff mother became a patient of the defendant hospital and that on the same day of admission a child was born to her at that hospital, that the hospital aided the attending physician in the delivery of the child and the aftercare of the mother. It was stated that the hospital had contracted with the mother and father to render such medical care and treatment as might be necessary to the physical as well as to the mental benefit of the mother. It was alleged that the hospital by its agents, servants, and employees for several days after the delivery represented to the parents that the mother had been delivered of a child of female sex and that thereafter the agents, servants and employees of the hospital informed the plaintiffs that the sex of their child was male i
a result of
contract o
employees
they were
was female instead of male that as a result of such carelessness negligence, and breach of contract the plaintiffs suffered severe physical and mental anguish feeling that the child given to them was not their own and that in the future they will continue to suffer much physical and mental pain. The parents together sought damages against the hospital in the sum of $25,000. It should be noted that the parents made no claim that they had been given a child other than the one born to them. There was no assertion that they received the wrong baby.

Your counsel made an application in Special Term of the Supreme Court for judgment dismissing the complaint for failure to state facts sufficient to constitute a cause of action against the hospital. The Court duly granted the motion with a written opinion, in the course of which the following was stated:

'Construing the complaint most liberally in favor of plaintiffs, it is impossible to perceive any breach of any contractual obligation on the part of the defendant hospital which
for legal insufficiency
alleged nor any breach.
Indeed, aside from the use of the term contract' or 'contracted' there is nothing in the complaint to indicate that the action is *ex contractu*. No attempt to plead breach of contract has even been made.

At most the action is in tort, and as such is fatally defective for lack of physical injury. True, the pleader has described the consequences to the plaintiffs of this unfortunate incident as 'severe physical and mental anguish.' It is clear, however that no actual physical injury has been claimed. There may have been purely mental anguish, agony,
ave even given
but in either
s in this State
that in the absence of accompanying physical or corporeal injury there can be no recovery for mental suffering or the consequences of such disturbance resulting from a negligent or careless act, as distinguished from one that is willful. Mitchell v Rochester Railway Co, 151 N Y 107. Comstock v Wilson, 257 N Y 231, Curtin v Western Union Telegraph Co 13 App Div 253 Stahl v Necker Inc, 184 App Div 85, Smith v Rector, etc Trinity Church, 140 Misc 301, affd 234 App Div 840.)

In the Comstock case, (*supra*) the court said at page 235: "Mental suffering or disturbance, even without consequences of physical injury, may in fact constitute actual damage, nevertheless the
Accordingly the motion to dismiss must be granted."

* Kaufman v ——— Hospital 183 Misc 714

D D T RELEASED FOR EXPERIMENT

A limited quantity of D D T, the war developed insect killer, has been released for distribution for agricultural and other civilian experimentation, the War Production Board announced on February 12. Formerly requests for D D T for research work required application to W P B for individual allocations of the chemical. The material can now be obtained directly from D D T producers without further permission from W P B.—*N Y Herald Tribune, Feb 13, 1945*

Medical News

Foundation for Infantile Paralysis to Train Physical Therapists

BECAUSE of the critical need for qualified physical therapists for infantile paralysis victims, the National Foundation for Infantile Paralysis has appropriated $1,267,600 for the training of these specialists, it was announced on March 18 by Basil O'Connor, president of the foundation.

"Today," he said, "there are only 2,500 qualified physical therapists, of whom more than half are in the armed forces. With earlier and more extensive use of such methods of treatment, so imperative in the treatment of infantile paralysis, twice the number already trained could be used for this disease alone. It is estimated that an additional 5,000 could be used right now, not only for the treatment of infantile paralysis, but also for aiding recovery from many other diseases and disabilities."

The $1,267,600 program developed under guidance of a special committee includes the allocation of $1,107,000 for scholarships to train new physical therapists, $82,000 for fellowships to provide additional teachers, and $78,600 for general development of the field of physical therapy.

Preparation for entrance into approved schools of physical therapy requires graduation as a nurse or physical educator or two years of college training including biology and other basic sciences.

Surplus of Penicillin Is Released to Doctors for Treating Civilians

WITH the Government relinquishing formal control over penicillin, the drug will henceforth be distributed for civilian use through normal trade channels.

Dr. John N. McDonnell, director of the War Production Board's Office of Penicillin Distribution, said on March 15 that it would make 1,280,000 vials of the drug available through March 31 and would allocate 1,500,000 through April and succeeding months.

The vials, each containing 100,000 Oxford units, the normal dose, will be sold by pharmacists at $2.40 apiece only to doctors, because the drug in this form must be administered hypodermically under medical supervision.

Dr. McDonnell pointed out that until production increased no penicillin would be available in ointments or pills. The amounts now being released represent surplus over military requirements for sick and wounded. Meanwhile, doctors warned against indiscriminate and unsupervised use of penicillin in throat lozenges, chewing gum, tooth paste, jellies, and skin creams.

Output is still rising, it was pointed out, and the April allocation of 1,500,000 vials presumably will be raised considerably in ensuing months. E. Allen Newcomb, secretary of the National Wholesale Druggists' Association, said that his organization is sending out bulletins giving instructions for proper refrigeration of penicillin.

War Objectors to Serve in N. Y. Mental Hospitals

ONE hundred conscientious objectors have been assigned to work at three New York State Mental Institutions to relieve manpower shortages, Dr. Frederick MacCurdy, mental hygiene commissioner, announced on March 5.

Within the next thirty days, twenty-five members of the Mennonite sect were established at Hudson River State Hospital, Poughkeepsie. A similar unit was set up at Wassaic State School for Mental Defectives, and assignment of a third group of approximately fifty men to Pilgrim State Hospital, Brentwood, followed shortly.

With approval of Governor Dewey, negotiations for use of the men were made with the National Selective Service Headquarters. More conscientious objectors may be assigned to state hospitals, Dr. MacCurdy said.

Shortages in ward service personnel, ranging from 32 to 65 per cent, have caused great difficulties in maintaining proper standards of care, the commissioner declared, and "the assignment of conscientious objectors to ward services is a step in the department's efforts to ease the critical situation."

Dr. MacCurdy pointed out that conscientious objectors already had been placed at public mental institutions, including veterans' facilities, throughout the country.

"They have rendered substantial service during the war emergency," he said.

They receive maintenance and a small financial allowance. They are subject to Selective Service regulations and the rules of the institutions in which they serve, although they gain no civil service status.

DDT Will Add Civilian Role to War Duty

THE War Production Board has authorized producers of DDT—the full name is dichlorodiphenyltrichloroethane—to release about 100,000 pounds of the lethal powder to civilian research agencies during the first six months of 1945.

The potent agent that forced the capitulation of body lice when it was first tried in North Africa, that conquered a typhus outbreak before it could become epidemic in Naples, that swept malarial mosquitoes out of Saipan when American troops went in, already has its civilian duties outlined.

Beginning in March and continuing until June, crews organized by the United States Public Health Service and state public-health agencies will visit 300,000 homes in one hundred counties of eleven Southern states to spray the houses with a DDT compound.

If its previous performances are repeated, all flies and mosquitoes that touch the ceilings or walls for three months after the spraying will undergo certain deaths.

Thomas D. Mulhern, secretary of the New Jersey Mosquito Extermination Association, in charge of mosquito control at the State Agricultural Experiment Station, announced in New Brunswick.

[Continued on page 912]

Protection against Rickets

in once-a-month dosage with

Infron

Pediatric

(Trade Mark)

The clinical investigations of Wolf[1, 2, 3] and Rambar,[4] show conclusively that once a month dosage with Infron Pediatric is convenient, rational, safe and effective

only one capsule is required each month

Each capsule contains 100,000 U S P units of electrically activated, vaporized ergosterol (Whittier process) —highly purified and especially adapted for this use One package contains six capsules—a six months' supply

Infron Pediatric is readily miscible in feeding formulas, fruit juice or water Can also be added directly to cereals

Infron Pediatric is available only in hermetically sealed vials

NUTRITION RESEARCH LABORATORIES
CHICAGO

1. Wolf I J Treatment of Rickets with a Single Massive Dose of Vitamin D, J Med Soc New Jersey 38 436 (Sept.) 1941

[Continued from page 910]

New Jersey, that enough DDT has been made available for extensive mosquito-control experiments in that state this summer.

New York is not expected to participate in any mosquito-control tests with DDT, it was explained at the district offices of the United States Public Health Service here, since mosquito control is a relatively minor problem here, but DDT will find other uses in this state.

County News

Albany County

Dr. Gilbert Dalldorf, since 1919 director of laboratories of Grasslands Hospital, Valhalla, Westchester County, was appointed on March 14 Director of the Division of Laboratories and Research of the State Health Department to succeed Dr. Augustus B. Wadsworth, who recently retired.

Announcement of the appointment was made by Dr. Edward S. Godfrey, Jr., State Health Commissioner. In assuming his new duties on April 16, Dr. Dalldorf will fill one of the most important posts in public health in the state.

Dr. Dalldorf, who was born in Davenport, Iowa, has conducted extensive studies in deficiency diseases in affiliation with the department of physiologic chemistry, Teachers College, Columbia University. He is the author of many technical articles and has collaborated in the preparation of several books on medical subjects.*

Broome County

Both pros and cons of socialized medicine were discussed by Dr. H. I. Johnston, Binghamton physician, when he addressed members of the Civic Club of Binghamton in the Monday Afternoon Clubhouse on February 28.

Present chairman of the Compensation Board of Broome County Medical Society, Dr. Johnston is immediate past chairman of the Economic Committee of the county society, which since 1935 has been studying the subject of socialized medicine and more specifically, that of prepayment medical insurance. He is a member of the Medical Society of the State of New York and the American Medical Association.

Dr. Johnston was introduced by Mrs. Robert B. Guy, chairman for the afternoon. The hostess was Mrs. Webster L. Bagley.

Presiding at the tea table were Mrs. Edward Wehle and Mrs. Joseph Deacon, and serving were Mrs. Lyle E. Warner, Mrs. Robert Lee, and Mrs. Harry Barney.*

Chautauqua County

In keeping with an announcement that the wildlife unit of the U. S. Department of Interior will work with all health agencies in a fight to block further spread of rabies in Western New York, the Jamestown Medical Society, has unanimously passed a resolution urging more drastic measures in this area to control the disease.

Among the actions specifically recommended is stricter quarantine and control of all dogs, compulsory vaccination, and cooperation with other agencies to stamp out rabies, fatal to human beings.

The action of the Medical Society followed reports that a steadily increasing number of rabid dogs have bitten persons throughout the city and county.*

Chemung County

Dr. Rene Breguet, chief medical officer and psychiatrist at the Elmira Reformatory, who has served twenty-six months in the Army Medical Corps with a commission as captain, has returned to Elmira on terminal leave, following a serious illness. He will be given a medical discharge.

Dr. Breguet has served in several Army hospitals in the United States and Africa. He was on duty at the Walter Reed General Hospital and Army Medical Center, Washington, when he became ill and was a patient there. After fully recovering from his illness, he will resume his duties at the Reformatory.*

Dutchess County

A regular meeting of the county society was held in the pavilion of the Hudson River State Hospital, Poughkeepsie, March 14, at 8:30 P.M.

The scientific session included the following talk: "Pyuria and its Significance," by Dr. Roy B. Henline, attending urologist, New York Hospital, Welfare Hospital, and Riverside Hospital, urologist, New York Foundling Hospital, New York City, consulting urologist, Mt. Vernon, Yonkers, and Newburgh hospitals.

Also, information on how the physician can best supply the needs of medical assistance to returning veterans was given in full and in detail by Mr. T. Yawn, manager, and Mr. E. L. Daniels, Veterans' Representative of the U.S. Employment Service.

Erie County

Teamwork of skilled surgeons on American battlefronts plus the use of modern drugs—penicillin, sulfonamides, and plasma—have been responsible for the reduction of mortality from 15 per cent in World War I to the present 3 per cent, declared Dr. W. Ward Plummer before members of the county society on February 27 in Hotel Statler, Buffalo.

Dr. Plummer is civilian consultant to the orthopedic section, Second Service Command hospitals.

Stressing the Army's policy to continue every effort compatible with the injuries of these battle casualties, Dr. Plummer pointed out the specialized types of surgery accomplished in special centers throughout the country. He said that no man was released until he could use his artificial extremities successfully. Facilities for rehabilitating these men have been greatly improved since World War I, he added.

He also paid tribute to the "tremendous part" played by the medical corpsmen on the battlefields.*

* * *

Bestowing its accolade upon Dr. Nelson G. Russell, the University of Buffalo on February 22 accorded community recognition to a man who has devoted half a century to healing the sick and the advancement of medical science.

The elder statesman of Buffalo medicine, chairman of the city's Advisory Board of Health, and chairman of the Board of Managers of Meyer Memorial Hospital, Dr. Russell long has been held in high esteem both by the medical men and by the thou-

* Asterisk indicates that item is from a local newspaper.

[Continued on page 914]

TABLETS FOR *Oral* USE—
AMPULS FOR *Injection*

There has long been a real need for a potent, mercurial diuretic compound which would be effective by mouth. Such a preparation serves not only as an adjunct to parenteral therapy but is very useful when injections can not be given.

After the oral administration of Salyrgan-Theophylline tablets a satisfactory diuretic response is obtained in a high percentage of cases. However, the results after intravenous or intramuscular injection of Salyrgan-Theophylline solution are more consistent.

Salyrgan-Theophylline is supplied in two forms:

TABLETS (enteric coated) in bottles of 25, 100 and 500. Each tablet contains 0.08 Gm. Salyrgan and 0.04 Gm. theophylline.

SOLUTION in ampuls of 1 cc., boxes of 5, 25 and 100; ampuls of 2 cc., boxes of 10, 25 and 100.

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Brand of MERSALYL and THEOPHYLLINE

WINTHROP

[Continued from page 912]

sands of persons whom he has attended in these 50 years.

He has always been in the vanguard of medical thinking and practice. An outstanding diagnostician, he has been especially noted for his work in pathology, in heart disease, and in lung ailments.

A staunch believer in the scientific approach to medicine and a pioneer in that technic, Dr. Russell has coupled it with a deep interest in the personal element of each patient. He was the founder of the milk dispensaries which have become Buffalo's well-baby clinics.

For half a century he has been associated with the University of Buffalo Medical School, with the Buffalo General and Meyer Memorial hospitals. Both in his teaching and in his practice, he has devoted special attention to young men in the medical profession, giving them responsibilities, stimulating their interest, and making good doctors of them.

Dr. Russell won his greatest acclaim, outside of the Buffalo area, during the last war. A veteran of the Spanish-American War and of the New York Guard, he entered World War I as chief of medical service of the 23rd General Hospital.*

Kings County

Dr. Daniel Kravitz, of the Brooklyn Eye and Ear Hospital, and Dr. Raymond L. Pfeiffer, of Presbyterian Hospital, New York City, spoke recently at a scientific session of the Brooklyn Ophthalmological Society in the Hotel Towers.

Heading the general discussion which followed the talks was Dr. Robert H. Stockfish, of the Jersey City Medical Center.

Dr. Michael J. Buonaguro, president of the society, was chairman at a dinner for the executive committee and guests before the evening session. Other officers of the society are Dr. Allen Hull, vice-president; Dr. Benjamin C. Rosenthal, secretary-treasurer, and Dr. Louis Freimark, associate secretary-treasurer.

. . .

Dr. Mark Straus, of Brooklyn, who served in Spain with the Loyalist forces, has been named chairman of the medical and allied professions division of the Joint Anti-Fascist Refugee Committee.

Dr. Leo M. Davidoff, of Brooklyn, is honorary chairman of the medical division.

The Joint Anti-Fascist Refugee Committee is launching a campaign to be known as the Spanish Refugee Appeal to raise $750,000 for the relief of Spanish Republican refugees. Most of the funds will go to aid Spanish exiles in France, many thousands of whom are ill and starving, according to the committee.

Dr. Straus, a graduate of the Sorbonne, is visiting physician at the Kings County Hospital and a member of the Kings County Medical Society.*

. . .

The stated meeting of the county society and the Academy of Medicine of Brooklyn was held on February 20 at 8:45 P.M. in MacNaughton Auditorium. Dr. Bronson S. Ray, associate professor of surgery, Cornell University Medical College, and attending surgeon (neurosurgeon), New York Hospital, spoke on "Surgical Aspects of Carotid Sinus Reflex," and Dr. Joseph Stokes, Jr., professor of pediatrics, University of Pennsylvania, Philadelphia, discussed "Studies on Prevention and Treatment of Certain Acute Infectious Diseases."

Nassau County

The regular monthly meeting of the county society was held on February 27 at 9:00 P.M. in the auditorium of Mercy Hospital, Rockville Centre. Following the business meeting Dr. William Goldring, associate professor of medicine, New York University College of Medicine, spoke on "Hypertension and Hypertensive Heart Disease."

. . .

Dr. Arthur Frucht, formerly of Westbury, has been discharged from the Army and has resumed practice in Nassau County.

. . .

Dr. Claire Burton Reinhardt, executive secretary of the Nassau County Cancer Committee, addressed the Freeport Athena Club on March 2 on the topic "An Ounce of Prevention."

The talk was sponsored by the community service department of the club, Mrs. Frederick E. Jansen, chairman.

Dr. Reinhardt was graduated from the Massachusetts Institute of Technology and completed her Doctor's degree at Yale. She has occupied her present post for the past three years.*

New York County

Dr. Ernest L. Stebbins, Health Commissioner, will go to Italy soon as an agent for the United Nations Relief and Rehabilitation Administration and the United States Public Health Service to study health problems in that country, it was disclosed on March 9. Dr. Stebbins, to whom Mayor La Guardia has granted a leave of absence at the request of the Federal authorities, will help set up a program intended to check the spread of tuberculosis and other diseases in Italy.

He will continue his duties as Health Commissioner, pending travel orders from Washington. He has taken the necessary physical examinations and inoculations. While in Italy he will make a study also of the food problem as it relates to national health. He will submit a detailed report to Washington.

Dr. Stebbins was appointed Health Commissioner on July 16, 1942, succeeding Dr. John L. Rice. During his absence his duties will be taken over by Dr. Frank A. Calderone, Deputy Health Commissioner.*

Oneida County

The February meeting of the Utica Academy of Medicine took place in the Hotel Utica on February 15. Following dinner at 7:00 P.M. the scientific session was held at 8:00 P.M. Dr. John R. Murlin, professor of physiology at the University of Rochester Medical School, spoke on "Biological Value of Protein Foods."

. . .

Dr. Richard H. Hutchings, of Utica, has been reelected a director of the National Committee for Mental Hygiene, it was announced February 17 in New York City.

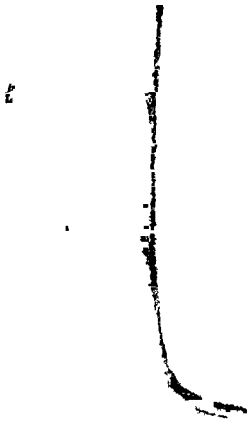
Among five new members is Lt. Col. John M. Murray, psychiatric consultant to the U.S. Army Air Surgeon, stationed at Fort Thomas, Kentucky.*

[Continued on page 916]



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[Continued from page 914]

Onondaga County

A joint meeting of the county society and the Syracuse Academy of Medicine was held at 8:30 P.M., March 6, at the University Club, Syracuse. The scientific program consisted of a symposium on bacterial endocarditis. Dr. Orren D. Chapman spoke on "Bacteriology," Dr. George H. Reifenstein discussed "Pathology," and Dr. Edward C. Reifenstein spoke on "Diagnosis and Treatment." A business session of both organizations followed.

• • •

Dr. George L. Wright, Syracuse fire department physician, has taken over police department duties as well, Mayor Kennedy said on February 27.

Mr. Kennedy conferred with Dr. Wright on February 26 and was informed that the physician, ill earlier this year, was willing to work for both departments, replacing for police the services of Dr. Harry L. Gilmore, who was elected coroner last fall.

During Dr. Wright's illness, Dr. Gilmore had been carrying out police physician duties and some for fire department members.*

Putnam County

The directors of the Putnam County Health Association met on Monday, February 26, with Miss Louise Campbell, Field Advisor of the State Committee on Tuberculosis and Public Health, at Carmel High School. Also attending the meeting were Dr. Bertrand E. Roberts, District Health Officer, representatives of the county society, the school nurses, and district nurses. Tentative plans were made for the x-ray survey which will be held in each community throughout the county during the week of May 14.

Queens County

The county society discussed maternal mortality in a round-table meeting on February 27 in the Medical Society Building, Forest Hills.

Dr. Ralph L. Barrett, director of obstetrics in Knickerbocker Hospital, Manhattan, presided at the session, in which participants included Drs. Frederick Carpenter, Henry C. Eichacker, Edward A. Flemming, James P. McManus, and Harry P. Mencken.

The discussion followed a dinner at 7 P.M. in the Forest Hills Inn, at which Dr. Barrett spoke.*

• • •

The society met on March 16 at 4:30 P.M. in the County Society Building to hear a lecture entitled "Laboratory Aids in the Diagnosis and Management of Cardiovascular Disease" by Ernst P. Boas, associate physician at Mt. Sinai Hospital. The lecture was arranged by the Committee on Graduate Education of the county society.

Rensselaer County

Dr. Vincent T. Laquidara, of Troy, Lt., MC., recently returned from duty with the fleet, is now assigned as medical officer at the Navy recruiting station in Buffalo.

Before his present assignment, Lt. Laquidara took part in the invasion of Southern France on board one of the Navy's attack cargo ships. Standing off St. Maxime, he saw our amphibious troops pour ashore to overwhelm the Germans.

On active duty since June 1, 1943, Dr. Laquidara has variously been stationed at the naval training center at Sampson, Soloman, Maryland, and Norfolk, Virginia.*

St. Lawrence County

The county society held its spring meeting in the Hepburn Hospital Nurses Residence auditorium on Thursday, March 8 at 1 P.M. The speaker was Dr. Russell Cecil, of the faculty of the Cornell University Medical Clinic, New York City. His subject was "Arthritis."

The business meeting was preceded by a luncheon in the Seymour House.*

Schenectady County

The county society heard Dr. Joseph L. Schwind, assistant professor of anatomy at Albany Medical College, speak on "Cytology and Diagnosis of Diseases of the Blood" at a meeting on March 6 in Briggs Memorial Library at Ellis Hospital.*

Tompkins County

Dr. Howard B. Slavin, assistant professor of medicine and bacteriology at the University of Rochester, spoke at the county society meeting in Memorial Hospital on February 20. He discussed penicillin therapy.

Westchester County

"Psychosomatic Medicine" was the subject for the regular meeting of the Westchester Medical Society held on February 20 at New York Hospital, Westchester Division.

Dr. James Flexner, of White Plains, presented a paper on "The Medical Approach to Psychosomatic Problems" and Dr. James H. Wall, assistant medical director of the New York Hospital, presented "The Psychiatric Approach to Psychosomatic Problems."*

• • •

The Medical Society was invited to hold its April meeting at Eastern Aircraft, North Tarrytown.

There was a conducted tour through the plant with opportunity to observe construction of the Avenger torpedo bomber. A brief business session was held, followed by discussion of industrial health problems and collation.

Necrology

Sigmund Arthur Agatston, M.D., ophthalmologist, of New York City, died on March 5 of a heart attack after reading a paper at a meeting of the New York Society for Clinical Ophthalmologists. Dr. Agatston was born in Austria and received his medical degree from the College of Physicians and Surgeons, Columbia University, in 1900. He was senior assistant surgeon at the New York Eye and Ear Infirmary, attending ophthalmologist to the Sydenham Hospital, consultant at Montefiore Hospital, and emeritus associate ophthalmologist at Bellevue Hospital. A

[Continued on page 918]

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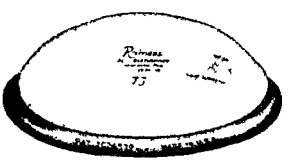


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[Continued from page 916]

fellow of the American Medical Association, the American College of Surgeons, the American Academy of Ophthalmology and Otolaryngology, and the New York Academy of Medicine, he was also president of the Harlem Medical Society, and past president, New York Society for Clinical Ophthalmology.

Robert Bailin, M.D., of Brooklyn, died on February 12 at the age of 52. He was graduated from the New York Homeopathic Medical College in 1917, and was a member of the A.M.A. and the County of Kings and State medical societies.

William A. Behan, M.D., F.A.C.S., of Binghamton, died on February 24 at the age of 65 after a short illness. Born in Pennsylvania, Dr. Behan was graduated from the New York University College of Medicine in 1910. He interned at Bellevue Hospital and was resident surgeon there before going to Binghampton, where he became closely associated with that city's hospitals. At the time of his death he was cochairman of City Hospital's surgical division, and chief of staff of Lourdes Hospital. He was a member of the Broome County and State medical societies, and of the A.M.A.

Robert K. Brewer, M.D., of Syracuse, head of the department of physiologic chemistry in Syracuse University College of Medicine, died of a heart attack at his home on March 22. He was a graduate of the University of Wisconsin, and had been a member of the Syracuse Medical College faculty since 1909. He was author of many research reports in scientific journals, a member of the A.M.A., and consulting chemist at the Memorial and Psychopathic Hospitals in Syracuse.

Devillo N. Bulson, M.D., of Rockville Centre, Long Island, died on March 22 at the age of 89. Dr. Bulson was graduated from the Eclectic Medical College in Albany in 1886, and practiced in Rockville Centre until his retirement in 1920. He was prominent in the civic affairs of Rockville Centre, having organized and served as president of the Nassau County National Bank of Rockville Centre, and village president and trustee.

Francis C. Evers, M.D., of Mount Vernon, died on February 17 at his home of a heart attack at the age of 52. Born in New Yor City, Dr. Evers received his doctorate in medicine from Fordham University in 1917. Upon his graduation, he volunteered for service in World War I and served in the U.S. Navy as a lieutenant. At the time of his death he was medical director of the New York Life Insurance Company.

Samuel Wallace Fowler, M.D., pioneer in the modern injection treatment of hernia, died on March 21 at his home in New York City. He was 75 years old. Dr. Fowler was graduated in 1895 from the College of Physicians and Surgeons, Columbia University, and served his internship at Newark City Hospital, Newark, New Jersey. He was instructor in urology at Vanderbilt Clinic and at Bellevue College Clinic, and also in syphilology at New York Hospital. From 1929 until his death, he specialized in the injection treatment of hernia, publishing extensively in the medical and surgical press on the history of the method, the status of research, and the modernizing of the technic in hernia treatment.

Alexander Dickinson Ghiselin, Sr., M.D., of New York City, and Southbury, Connecticut, died at his home in the Bronx on January 6 at the age of 63. Dr. Ghiselin received his medical degree from Marion-Sims Beaumont Medical College in Missouri in 1894.

George DeWayne Hallett, M.D., F.A.C.S., of New York City, died on March 14 at the age of 79. Dr. Hallett was connected with the Flower and Fifth Avenue Hospitals for more than four decades. He was graduated from the New York Homeopathic Hospital in 1889, and was a diplomate of the American Board of Ophthalmology, a member of the American Academy of Ophthalmology and Otolaryngology, the New York State Homeopathic Society, and the Alumni Association of New York Medical College.

Giles E. McClary, M.D., of Syracuse, died at his home on March 6 at the age of 82. A graduate of Rush Medical College, now a part of the University of Chicago, in 1886, Dr. McClary had practiced in Syracuse for fifty-five years, and was consulting physician at Crouse-Irving Hospital. He held membership in the Onondaga County and State Medical Societies, and the A.M.A., and was affiliated with Syracuse University College of Medicine.

Ludwig Michaelis, M.D. of Queens, died on March 1 at the age of 51. Dr. Michaelis received his medical degree from the University of Koenigsberg in 1920, and at the time of his death was assistant clinical physician at Queens General Hospital.

Archie L. Oberdorfer, M.D., ophthalmologist, died on March 12 at Memorial Hospital in New York City. He was 67 years old. Dr. Oberdorfer, senior attending surgeon at the Harlem Eye and Ear Hospital, had been head of the department of opthalmology there for the last forty-three years. Until recently he had been examining the eyes of inductees at Grand Central Palace. He received his medical degree from the University of Virginia Medical College in 1904, and was a member of the A.M.A., the New York State, and Harlem medical societies.

Robert Earl Patterson, M.D., of New York City, died on February 11 of coronary thrombosis. He was 50 years old. Dr. Patterson received his medical degree from McGill University Medical College in 1921, and was a member of the A.M.A., the New York County and State medical societies, and the Society of the New York Eye and Ear Infirmary.

Henry Rafel, M.D., neurologist, of New York City, died on December 14, 1944, at the age of 89. Dr. Rafel was graduated from Erlangen Medical College, in Germany, in 1894.

Albert Sidney Reed M.D., of New York City, died on December 14, 1944, at the age of 75. He was graduated from the New York Homeopathic Medical College and Hospital in 1895. He was a member of the Queens Clinical Society, the National Medical Association, and the American Institute of Homeopathy.

Reed A. Sauter, M.D., of Schenectady, died suddenly at his home on March 8, at the age of 75. Dr. Sauter was graduated from Albany College of Pharmacy, and later entered Albany Medical College, receiving his medical degree in 1895. He was a member of the New York State and Schenectady County medical societies. He had been a practicing physician in Schenectady for nearly fifty years.

Morris Weissberg, M.D., of Brooklyn and Elwood, died on March 17 at the age of 56. Dr. Weissberg was a specialist in internal medicine. Born in Russia, he came to this country as a boy, and was graduated from the Long Island College of Medicine in 1914. He had been consulting physician at Bushwick Hospital, Brooklyn, and St. Luke's Hospital, Newburgh, and at Evangelical Deaconess Hospital in Brooklyn.

Giovanni Zoilo, M.D., of Brooklyn, died on February 2 at the age of 67. Dr. Zoilo received his medical degree in Naples in 1905, and was assistant clinical physician at Cumberland Hospital, Brooklyn.

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Hospital News

Improvements

Forty radios have been sent from Syracuse to the station hospital at the Rome Army Airfield and to Rhoads General Hospital in Utica, where they will provide entertainment for wounded service men who have few other opportunities for amusement, Red Cross officials in Syracuse disclosed.

Delivery of the war-precious sets was begun four days after the camp and hospital committee of the Syracuse and Onondaga county chapter of the ARC received an appeal from both hospitals. The radios were rounded up through the cooperation of Syracuse newspapers and radio stations.*

• • •

Purchase of equipment valued at more than $3,000 was ordered by the Flushing Hospital board of trustees on February 20 at its regular meeting.

The purchases will include an operating table, two anesthesia machines, and a high-frequency electrical surgical unit to be used in the urology and eye departments.*

• • •

Portable inhalator equipment was recently donated to St. Jerome Hospital, Batavia, by members of the McAuley League. The new equipment, purchased with revenue obtained by the league from various sales, is of the latest design, and will be carried on the hospital's ambulance for use in case of drowning, heart failures, and other emergencies.*

• • •

Three contracts for construction work at Rhoads General Hospital were awarded in February, it was announced by Col. A. J. Canning, hospital commanding officer. Construction projects are a new gymnasium, a central surgical supply building, and an addition to the occupational therapy building.

Work on the latter two projects was under way in February and construction of the gymnasium was started March 15.*

• • •

Tompkins County Memorial Hospital was presented on March 1 with an incubator for premature babies and three other pieces of outstanding equipment by the Young Woman's Hospital Aid. An oxygen tent, fracture bed, and overhead frame were the other gifts.

The infant incubator provides within the machine all equipment for the complete care and examination of the infant.*

At the Helm

Maj. James A. Brussel, MC, was appointed assistant director of Willard State Hospital on March 1, 1945. Major Brussel has been on active military duty since October 29, 1940, and currently is with the New York Port of Embarkation doing transport neuropsychiatry.

• • •

The new director of Oswego Hospital, Oswego, is Chester Jermyn. For a number of years, he has occupied the position of office and maintenance manager of the hospital.

Other appointments are: Miss Mary O'Brien, as superintendent of nurses; Miss Regina Woods, assistant superintendent of nurses; Mrs. Jane Gillen, night supervisor; and Amelia Colby, dietician. Each of the above will serve under the director. Heretofore, there has been no head to whom the supervisors were responsible, it was said, with the result that the institution was not efficiently managed at times.

All of the appointments, President Penney announced, were of a probationary nature until April 1 and permanent appointments were not made until after that date.*

• • •

Dr. Ray Palmer Baker was re-elected president of the Samaritan Hospital, Troy, Board of Directors at the annual meeting on February 21. Highlights of the meeting were annual reports which showed the work of the hospital in maintaining efficient service to the community in spite of wartime conditions and the recommendation of the president that the hospital should look ahead now to the role it will play in the postwar world.

Also re-elected were E. Harold Cluett as first vice-president, David B. Plum as second vice-president, Ernest L. Warncke as secretary, and Edgar C. Stillman as treasurer.

Three new members of the corporation and Board of Directors were named. Henry J. Sidford will replace R. O. Kennedy on the board. Stephen H. Sampson succeeds the late Hobart W. Thompson, and Arthur H. Wellington replaces Gorham Cluett.

Members re-elected to the corporation and to the board for five-year terms are Livingston W. Houston, Harry McGrath, Mr. Plum, William Leroy Shields, and Maurice Whitney.*

• • •

Dr. Nathaniel H. Ives, practicing physician in Mount Vernon for half a century, was elected an honorary life member of the Board of Managers of Mount Vernon Hospital "in recognition for his fifty years' service to the hospital," at a meeting of the board.

Dr. Ives began his practice in Mount Vernon in the fall of 1895 when Mount Vernon's hospital was a little wooden building at the site of the present Nurses' Home. Since that time he has made trips almost daily up and down the steps to the hospital, which, in Dr. Ives' own words, is "a lot of steps."

During his half century of service to the community, Dr. Ives has sponsored many young doctors who came here, helping them to establish a practice, while he has become one of the best known mem-

[Continued on page 922]

* Asterisk indicates that item is from a local newspaper.

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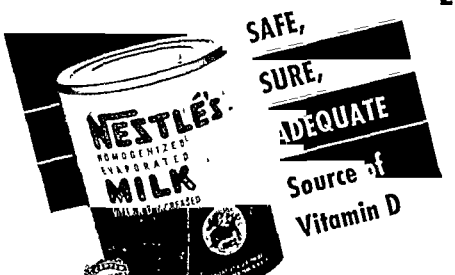
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[Continued from page 920]

bers of the medical profession in this city. He is a member of the Mount Vernon Medical Society, the Westchester County Medical Society, the New York State Medical Society, and the American Medical Association.*

• • •

Herman Ringe was re-elected president of the Board of Trustees of the Wyckoff Heights Hospital, Brooklyn, for his eleventh term at the annual meeting of the trustees at the hospital on February 20. The other officers of the board were also re-elected. Three new trustees were elected at the meeting of the hospital, also held last night.

Besides Mr. Ringe, the re-elected officers are: Herman L. Papsdorf, first vice-president; G. H. Henry Hustedt, second vice-president; Emil C. Zimmerman, secretary; F. A. Schurmann, treasurer; and Rudolph Stutzmann, chairman of the finance committee.

The new trustees selected at the meeting are: the Rev. Francis Wunsch, Herman Dippold, and William J. Kelsch.*

• • •

The board of trustees of Jamaica Hospital announced on March 3 the re-election of Clarence Ludlum, of Jamaica, as president and the re-election of all other officers of the board.

They are: Howard O. Wood, of Jamaica, and Mrs. M. A. Van Nostrand, of Forest Hills, vice-presidents; Mrs. John Adikes, of Jamaica Estates, secretary; Robert W. Higbie, Jr., of Kew Gardens, assistant secretary; Donald Kittel, of Jamaica Estates, treasurer; and George M. Gross, assistant treasurer.

Walter P. Burden, of Forest Hills, and A. Kenneth MacLachlan, of Jamaica, trustees whose terms expired, declined re-election.

In their places were named Otto Sambach of Queens Village, and Arthur L. Nash, of Hollis.

Dr. Marlo P. Bates, of Woodhaven, was elected attending obstetrician and gynecologist, to succeed Dr. Howard W. Neail, of Jamaica, who has retired from active practice. Dr. Neail was given the title of obstetrician and gynecologist emeritus.

Dr. Edward J. Buxbaum, of Jamaica, heads the medical staff. Other officers are Dr. Miller A. Sanders, of Forest Hills, vice-president; Dr. Daniel Porte, of Jamaica, secretary-treasurer.

Francis C. Leupold continues as administrator of the hospital.*

• • •

Dr. Garner Scullard, of Watertown, pathologist of both the House of the Good Samaritan and the Mercy Hospital for more than seven years, has resigned to become pathologist of the Warren City Hospital of Warren, Ohio.

The resignation will be effective May 1, at which time he will take over his new duties in the Warren 218-bed hospital.*

• • •

Dr. Carl E. Muench, superintendent of Crouse-Irving Hospital, Syracuse, has been appointed medical director of the hospital at the annual meeting of the board of directors.

Miss Dorothy Pellenz, assistant superintendent, has been promoted to superintendent, and Miss Elsie E. Hillen reappointed head of the school of nursing. The twelve directors of the hospital have been re-elected.

A postwar planning committee has been named, consisting of Harry Davies, Charles E. Cooney, George R. Fearon, and R. T. Frank Dolan.*

• • •

Dr. Robert Campbell has been elected president of the Park Avenue Hospital staff for the coming year.

Other officers and department heads named at a recent staff meeting are: Dr. Frederic Kleker, vice-president; Dr. John Hart, secretary; Dr. Guy VanAlstyne, chief, and Dr. James Hondorf, assistant chief of surgery; Dr. Clyde Sutter, chief, and Dr. John J. Finigan, acting chief of medicine; Dr. Arthur Woggan, obstetrics; Dr. James Flynn, x-ray; Dr. Charles Reitz, proctology; Dr. Frederick Garlich, urology; Dr. Nathan McDowell, ear, nose, and throat.*

• • •

Rana S. Cooper has resigned from the five-member Board of Managers of the Broome County Tuberculosis Hospital.

He said his resignation, effective Tuesday, stemmed from the "pressure of private business."*

Newsy Notes

Seventeen rooms at the United States Naval Hospital in St. Albans, Queens, furnished by lodges and auxiliaries of the metropolitan council of B'nai B'rith, were dedicated on March 18. The rooms, for the use of wounded service men, were equipped by the Jewish organization as part of its nationwide war service program.*

• • •

Immediate use of the Albany Hospital clinic for the benefit of wounded and disabled veterans of World War II was arranged on February 26 at a conference between George J. Pickett, Albany Veterans' Service Officer, and Dr. Thomas Hale, Jr., medical director. Dr. Hale consented to the arrangement even though the contract negotiated last week by Lt. Col. Edward H. Gibbons, of the U.S. Veterans' Administration, and clinical director of the Veterans' Facility at the Bronx, has not yet been formally signed.*

• • •

Effective March 1, private duty nurses in six Rochester hospitals were restricted to the seriously ill, according to an agreement effected among members of Rochester Hospital Council.

The new restrictions are necessary in the face of constant shrinking of the number of available nurses as the result of daily enlistments in the armed forces and the growing need for nurses in the service, according to Frederick J. Weider, president of the council.

The six hospitals are Genesee, Highland, Park

[Continued on page 924

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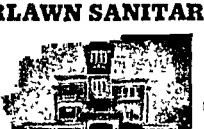
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[Continued from page 922]

Avenue, Rochester General, St. Mary's, and Strong Memorial.*

* * *

Outline for a $1,000,000 postwar development program at City Hospital, Syracuse, has been disclosed.

The city council was invited to discuss details of the program with the hospital's Board of Managers.

The program includes a 70-bed addition to the hospital in a new building approximately the same size as the six-story Doctors' Memorial, a new two-story addition to the maternity wing, a five-story addition to Phelps Nurses Home, construction of a third floor at the Kilmer Memorial Pathological Laboratory, a new one-story receiving ward, and a two-story storage building adjacent to the central receiving room.

Estimated cost of the proposed construction is $780,400, with equipment cost placed at $152,000 and $70,000 set up for architectural fees and other expenses.*

Presiding at the first meeting of the recently elected Board of Directors of the Oswego Chamber of Commerce, President Willard J. Hall advised the directors that he had appointed as members of the Special Hospital committee, authorized by the chamber membership at their annual meeting, February 6, to consider ways and means of providing more adequate hospital facilities for Oswego, the following: George M. Penney, Dr. Grover C. Elder, Harry C. Mizen, Alfred G. Tucker, W. A. Dougherty, Dr. W. McD. Halsey, and Kirk H. White.

The special committee is largely made up of men who are, or have been in the past, in close touch with hospital affairs by reason of service as officers of the hospital or members of its board of trustees, executive committee, or medical staff. The committee was recommended by the chamber membership to be appointed as the result of a brief address made by Dr. Elder at the annual meeting of the chamber in which the overcrowded condition which has existed at the hospital for several months was graphically set forth, and the urgent need of expansion of present facilities or the provision of an entirely new building presented.*

WILL AMINO ACIDS BE EXPLOITED LIKE VITAMINS?

"Nutritionists may have another lion by the tail," Mrs. Miriam Zeller Gross, of New York City, declares in the February issue of *Hygeia, The Health Magazine*. "Last time the lion's name was vitamins. This time it is amino acids.

"The last lion got away from the control of food scientists and rampaged high, wide, and handsome, ridden by the advertisers and the promoters, until corralled by the joint efforts of the medical profession, the government, and food scientists. These same food scientists are now watching developments and hoping that the lessons learned at the height of the vitamin craze will help prevent the exploitation of nutrition's recent findings. They also hope that otherwise intelligent citizens will not create a furor for amino acids as they did for vitamins by snatching at tablets, capsules, and drops to correct everything from toothache to inability to hang pictures straight.

"Like the vitamins, amino-acid products are designed primarily for sick people unable to get adequate nourishment through regular food sources. Also like vitamins, amino acids are usually obtained by eating the proper foods. People who suffer from amino-acid hunger usually do so through ignorance or carelessness.

"Proteins must be broken up into other, smaller substances before our bodies can assimilate them. These tiny protein fractions which food scientists think of as 'building blocks' are called amino acids. . . ."

Mrs. Gross, in explaining the functions of amino acids, says that "our digestive machinery separates the Sunday roast and cheese soufflé into amino acids so that our blood, bones, and all other body fluids and tissues may use these building blocks and rebuild their own proteins. The separation of proteins into amino acids is an intricate chain of chemical processes which begins when the teeth cut up food and it is mixed with saliva, then swallowed and combined with the digestive juices, which decompose the proteins and separate them into their amino acids.

"Scientists have discovered twenty-three amino acids so far, but there may be more. Probably all twenty-three are necessary, although it seems imperative now that only eight to ten be contained in our foods. Scientists are not agreed as to whether the nonessential amino acids are not required or are manufactured within our bodies, perhaps from substances gained through the essential amino acids.

"Generally speaking, foods of animal origin contain all the needed amino acids in varying amounts and combinations, but vegetable proteins supplement those of animal origin. Meat does not head the list of important protein foods. If we value the ideal amino-acid combination as to kind and proportion at 100, food ratings would include whole-egg protein at 91, whole milk at 85, meat (animal tissue) 82, white flour 52, and navy beans 38. It may be years before we know the ratings of all foods.

"Scientists point out that the important thing to get from their amino-acid findings is the realization that it is necessary to eat a balanced diet; that just getting your carbohydrates, fats, and vitamins is not enough. Considering the importance of amino acids and the amount of knowledge already gained, industrial laboratories should be commended highly for reserving amino-acid products to be administered by physicians for sick people. It will be interesting to see what happens next."

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Communist China, which for years has been cut off from sorely needed medical supplies, is being provided with American Red Cross medicines and equipment flown to the remote area by the China Wing of the Air Transport Command

Nearly ten tons of sulfa drugs microscopes x ray equipment, surgical instruments and other medical supplies were in the first shipment flown to the isolated Communists at Yenan by veteran pilots Col Floyd H Davidson, of Atherton, California, and Maj Thomas D Park, of Dallas, Texas

The supplies were delivered to Bethune Memorial International Peace Hospital, located in one of the systems of caves of bombed-out Yenan

Dr Ma Hai teh, the head, an American from North Carolina who prefers to be known by his Chinese name, called [illegible] st medicine I've seen in [illegible]

The medicines wer[illegible] operation of the Chungking government from various agencies which released part of the supplies they had received from the Red Cross The transfer was approved by the central government — *N Y Herald Tribune, Feb. 2, 1945*

Woman's Auxiliary

To the Medical Society of the State of New York

County News

Broome County. Members of the Women's Auxiliary to the Broome County Medical Society were entertained at tea February 28, in the home of Mrs. John D. Bowen in Binghamton. Proceeds of the tea were contributed to the Red Cross Drive. Miss Iris Graham sang two solos, accompanied by Vernon Christian, while David Ludden and Thomas Hujar entertained with the flute and accordion. Dr. Bowen presented several piano selections.

Mrs. Henry D. Watson and Mrs. Howard W. Davis presided at the tea table, which was decorated with pink snapdragons and pink tapers. Mrs. Mark Williams was chairman of the hospitality committee and was assisted by Mrs. J. C. Zillhardt, Mrs. Carl Benson, Mrs. B. L. Matthews, Mrs. D. O. Chamberlain, Mrs. Hugo Lott, Mrs. Vincent M. Maddi, Mrs. Alfred Loewenstein, Mrs. Watson, and Mrs. Davis.

Erie County. We are most grateful to the members who staffed the War Bond Booth during the month of February. Their efforts brought $14,116.95 in bonds and stamps.

The program committee was entertained with a dessert luncheon by Mrs. Joseph W. Madden at her home on Friday, March 9.

Mrs. Walter L. Machemer was hostess to the American Red Cross Knitting Group of the Auxiliary at luncheon at her home Thursday, March 8, and Mrs. J. Herbert Donnelly was hostess at luncheon at her home March 22. Another afghan has been completed and presented to the Red Cross.

Mrs. Jesse G. Levy called a meeting of the Public Relations Committee at her home Sunday, March 11 to outline plans for the public meeting on "Control of Cancer" which was held in the ballroom of the Hotel Statler on April 18. Every effort was made to fill the ballroom to capacity.

The Executive Board met on Tuesday, March 13 in the Board Room of the Medical Society, Mrs. William Rennie presiding.

On Tuesday, March 27 luncheon was served in the Chinese Room of the Hotel Statler at 12:30 P.M promptly. A meeting was called at 2 P.M., followed by a "Potpourri of Reading" by Miss Frances Hepinstall. Reservations were in charge of Mrs. Stuart A. Good and Mrs. Joseph W. Madden. The hospitality committee was assisted by Mesdames Isidor Adler, Thomas G. Allen, Jr., Marvin Amdur, and Charles S. Alaimo. We hoped to see present at this meeting our suburban members who had been snowbound all winter.

Queens County. The executive board of the Woman's Auxiliary of the Medical Society of Queens entertained 150 persons at a luncheon and bridge in January in the Colonial House, Flushing.

The guest speaker was Dr. Edward C. Veprovsky, president of the county medical society. The proceeds from the affair were used to buy necessities for convalescing servicemen at St. Albans and Fort Totten Hospitals.

Mrs. Herman Enselberg was general chairman for the event and Miss Lucy Lanza, cochairman. Mrs. Meyeron Coe, president of the unit, Mrs. Patrick De Canio, and Mrs. William Blaso were hostesses.

Members of subcommittees assisting in arrangements were Mrs. Edward C. Veprovsky and Mrs. William Flanagan, tickets; Mrs. J. Gibson Hill, Mrs. Michael Pollack, and Mrs. Joseph Desane, awards.

Sgt. Doris Packer, of the Flushing recruiting office of the WAC's, was a guest at the affair and asked for women to volunteer in the Women's Medical Corps.

The next meeting of the auxiliary was on February 27 in the Queens Medical Building in Forest Hills. A board meeting was scheduled for March 6 at 1:30 P.M. in the Medical Building. Mrs. Meyeron Coe, president, conducted the executive committee meeting. Mrs. William Brons, war activity chairman, reported that $25 was donated to Fort Totten Hospital for cigarettes. The club voted a donation of $20 for the Red Cross War Fund.

Plans were made for a spring luncheon to be held May 9, at the Aviation Terrace, La Guardia Airport, at 12:30 P.M. Mrs. Herman Enselberg, chairman, will be assisted by Miss Lucy Lanza.

Mrs. Enselberg reported on the luncheon held in February, the proceeds of which went to purchase articles for the servicemen at St. Albans and Fort Totten Hospitals.

The auxiliary voted to donate the money collected for the Carl Boettiger Memorial Fund to the Queens Medical Library.

The next meeting was held March 27, at 8:30 P.M., in the Medical Building, and the next executive meeting was held on April 3, at 1:30 P.M.



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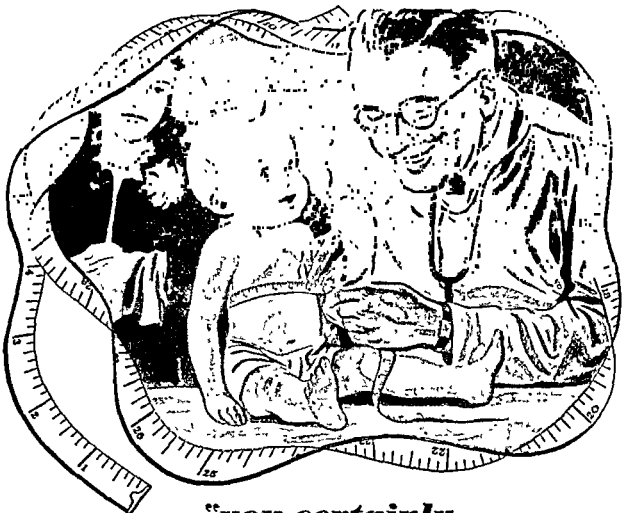


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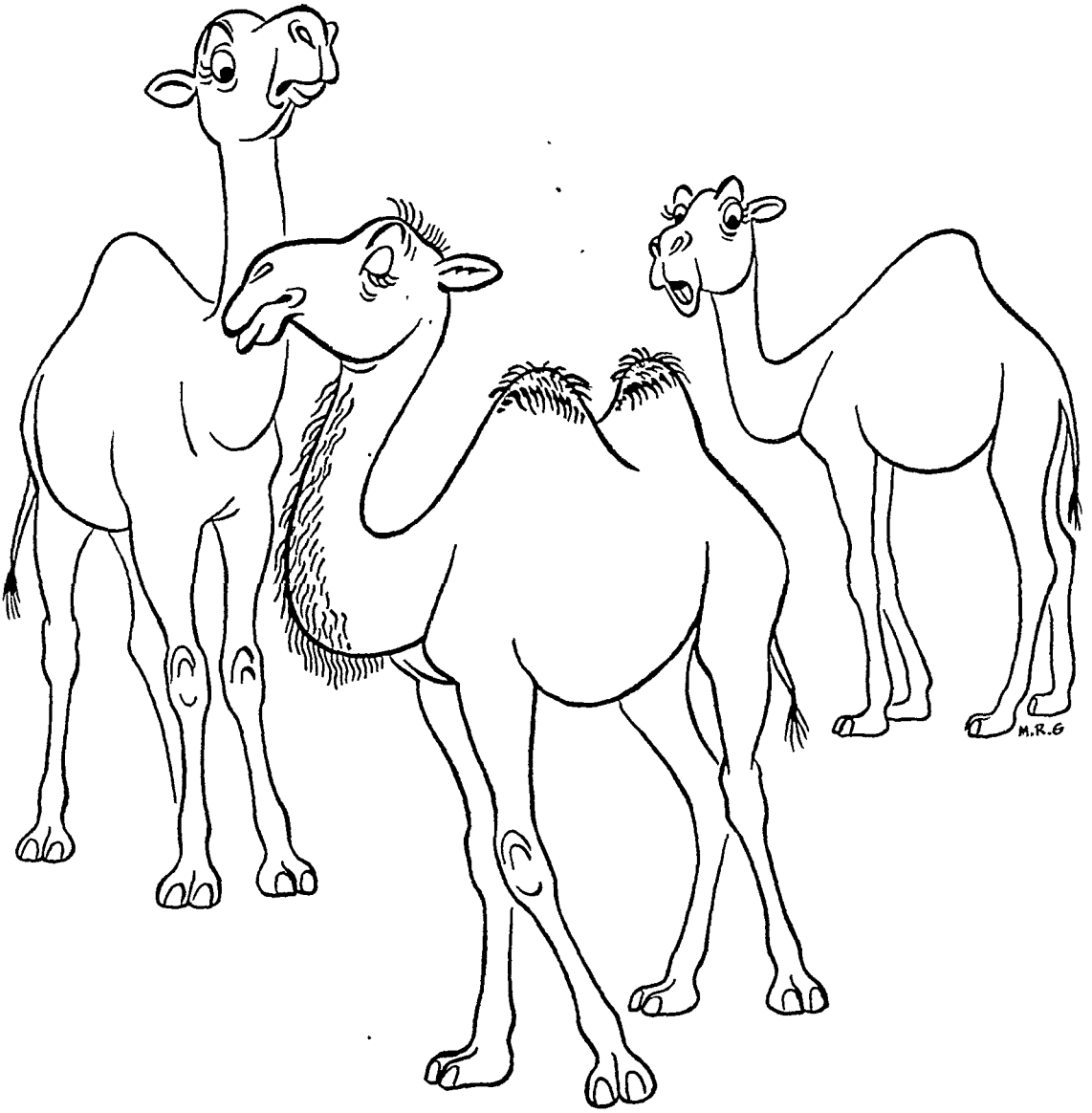


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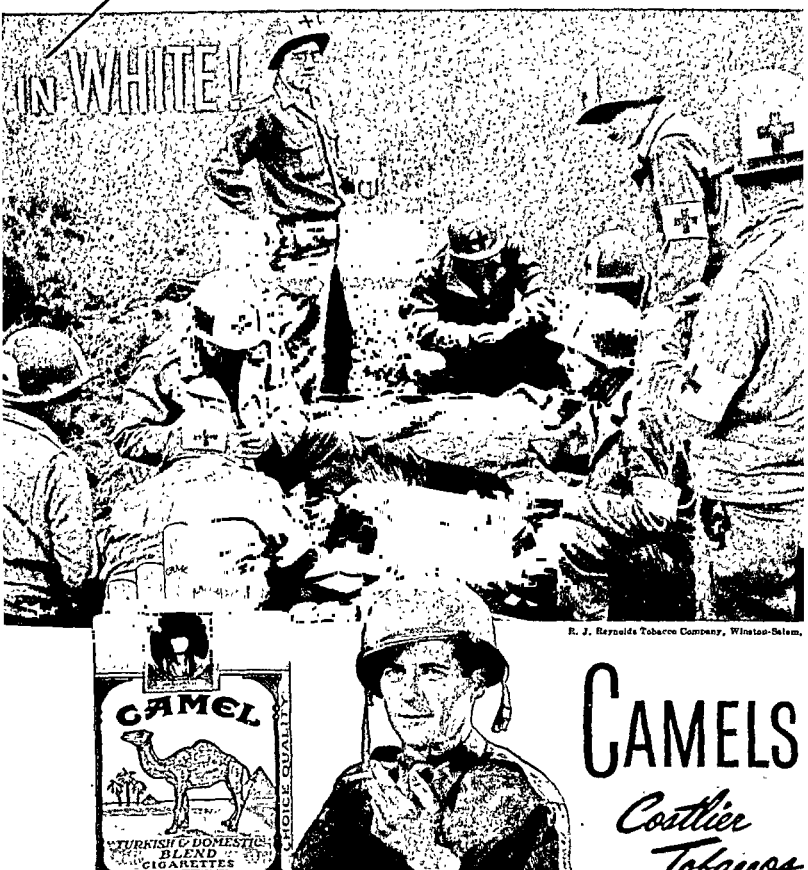
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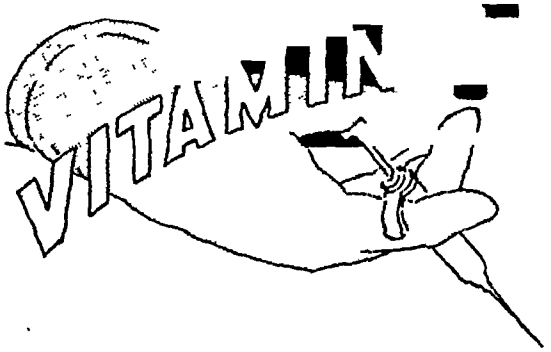
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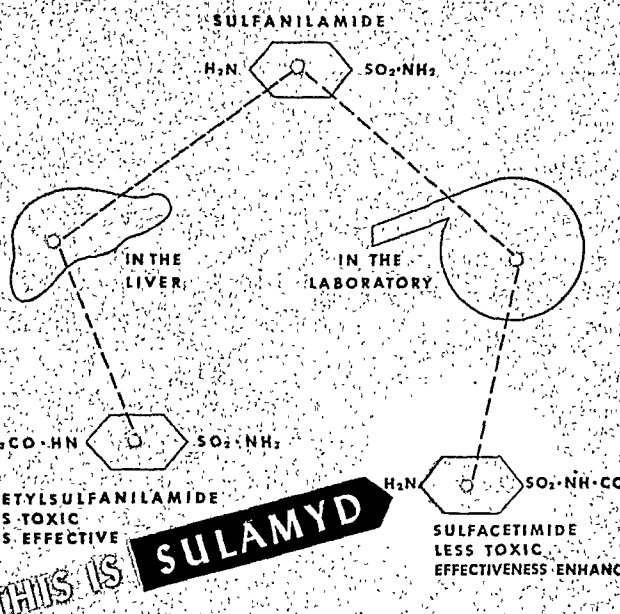
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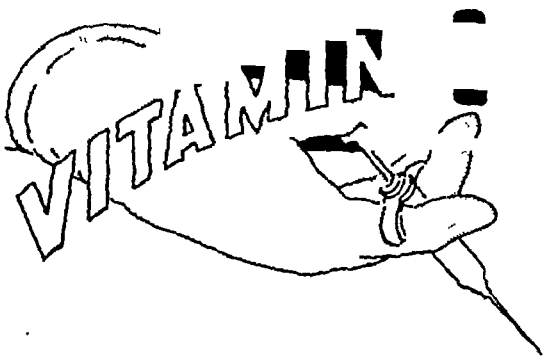
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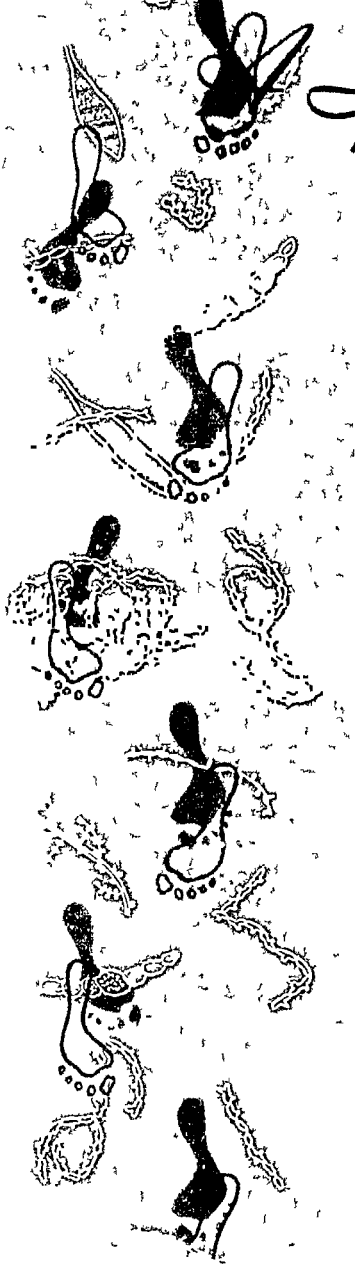
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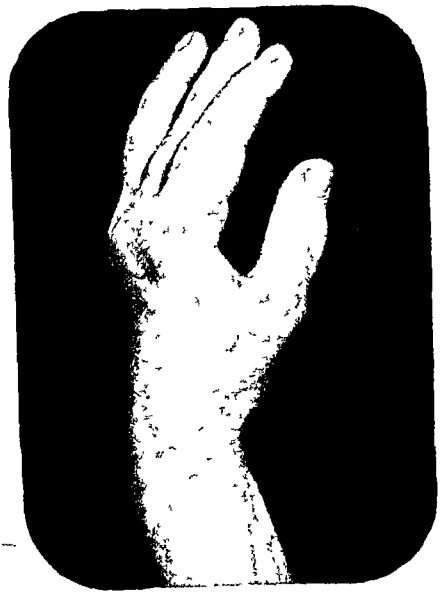
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*Welch, Henry, and Hunter, Albert C., Method for Determining the Effect of Chemical Antisepsis on Phagocytosis, Am. Jnl. of Public Health, Vol. 30, No. 2, Feb. 1940.

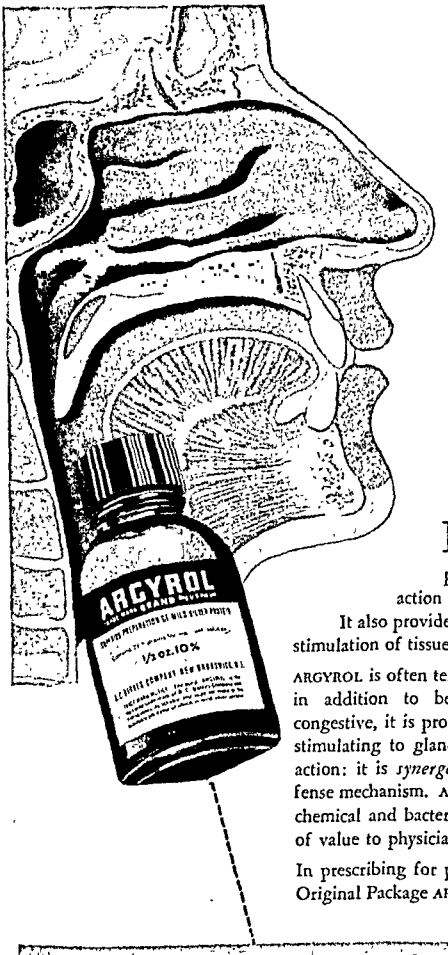
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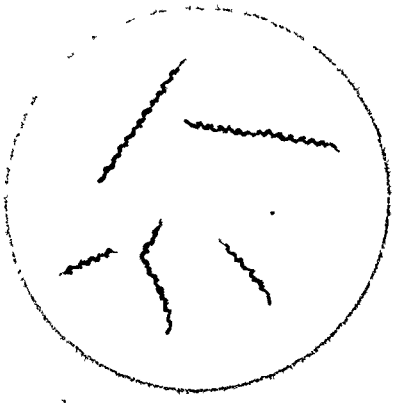
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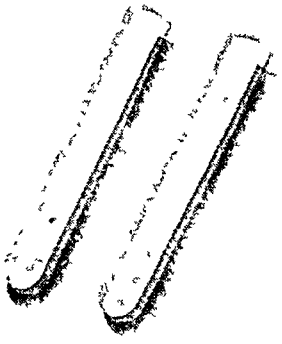
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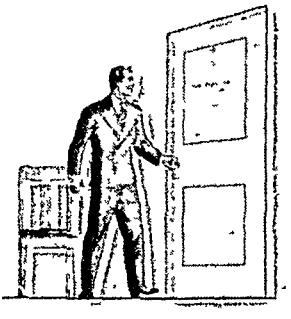
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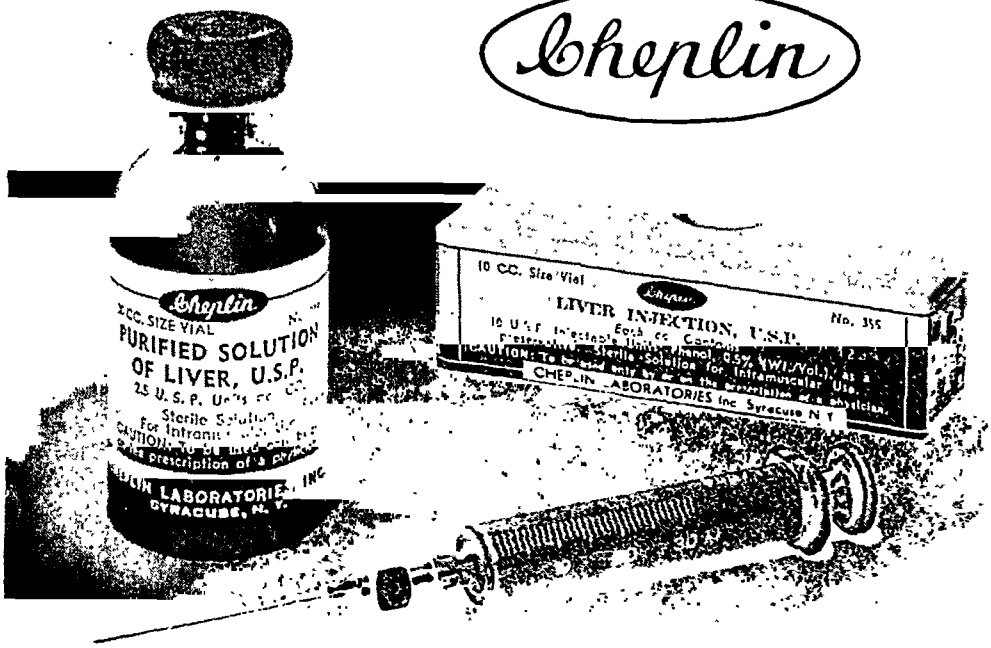
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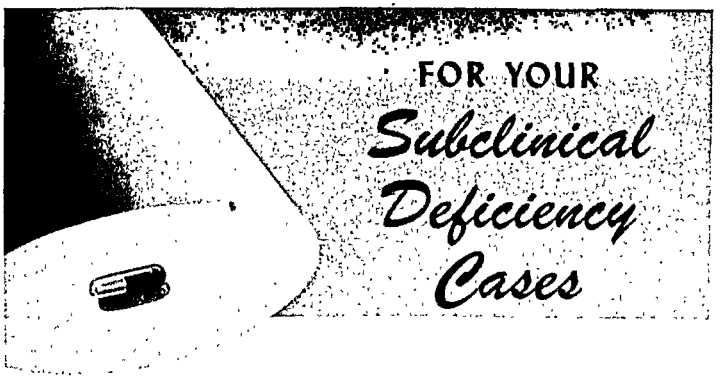
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(1). Spies, Tom D.; Cogswell, Robert C., and Vilter, Carl: J.A.M.A. (Nov. 18) 1944. Spies, Tom D.: Med. Clin. N. Am. 27:273, 1943. (2). Jolliffe, Norman, and Smith, James J.: Med. Clin. N. Am. 27:567 (March) 1943.

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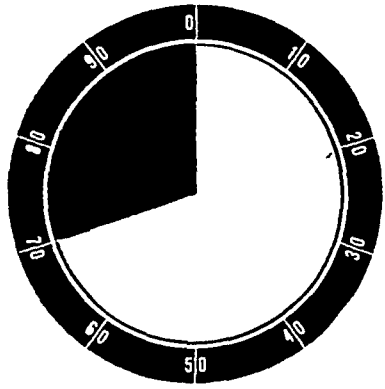
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*Shapiro, S; Segard, C. P., and Tabachnick, E. N.: Prevention of Hemorrhagic Anemia After Blood Donation in Normal Adults, New York State J Med 45 394, 1945. (Reprints of this article will be sent upon request).

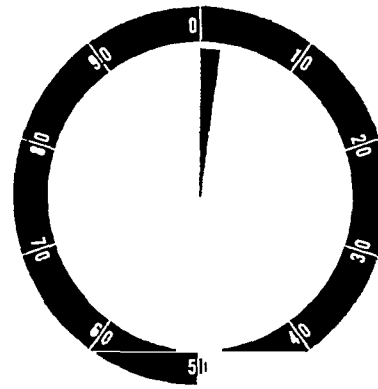
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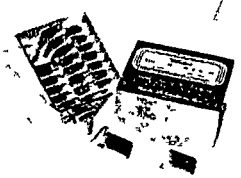
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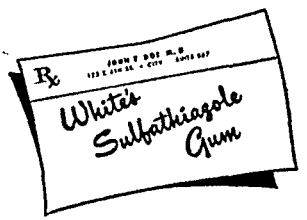
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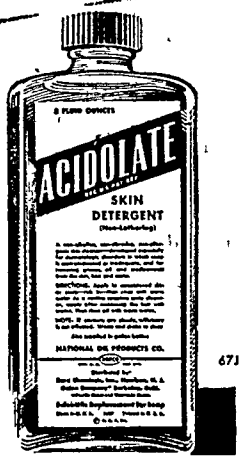
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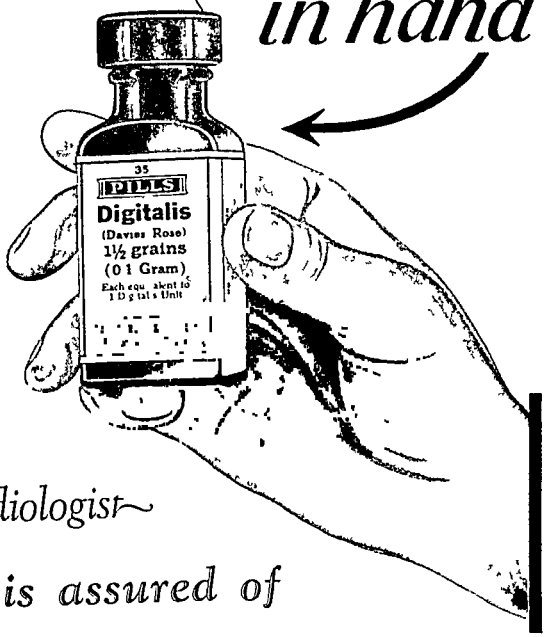
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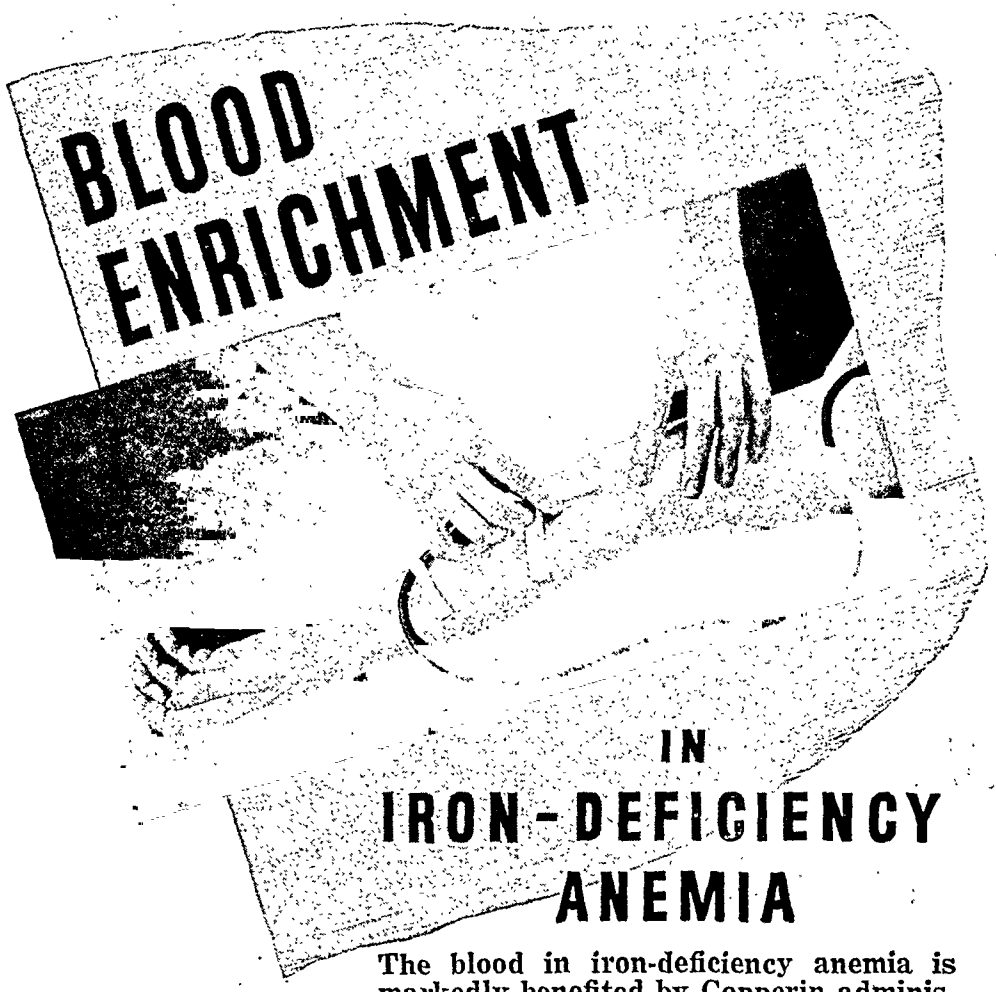
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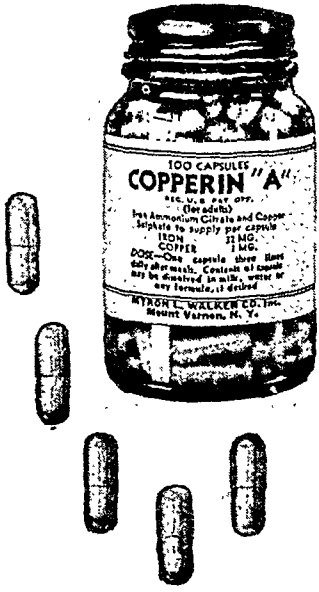
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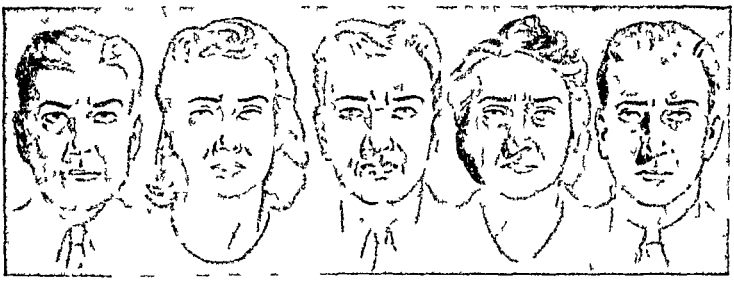
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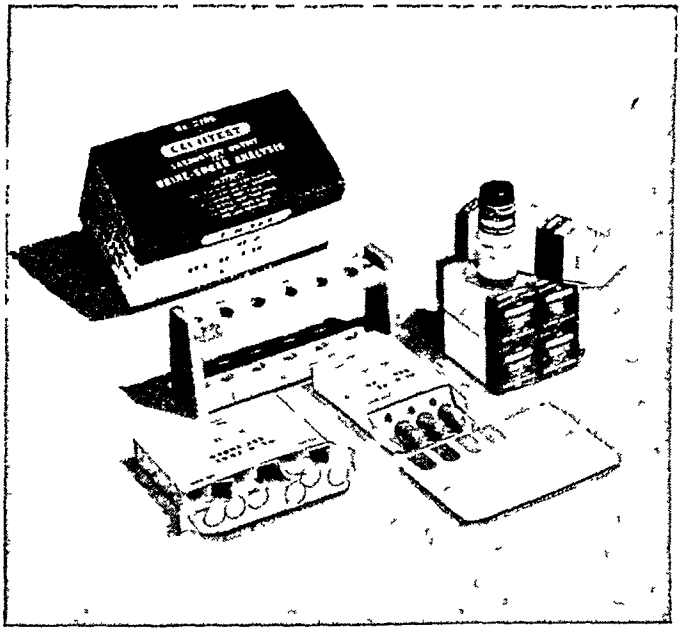
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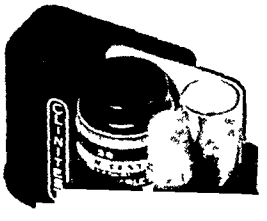
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*GOLD, H., CATTELL, McK.; MODELL, W.; KWIT, N. T., KRAMER, M. L. and ZAHM, W.; Clinical Studies on Digitoxin; With Further Observations on its Use in the Single Average Full Dose Method of Digitalization, J. Pharmacol. & Exper. Therap. 32 187-195 (Oct.) 1944.

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VOLUME 45 MAY 1, 1945 NUMBER 9

Editorial

Limitations of Sulfonamide Therapy in Surgery

The futility of treating wounds by the topical application of sulfonamides seems to be proved beyond dispute. As long ago as 1941 Fleming, as quoted by Wakson, warned against placing too much faith in antiseptics belonging to the sulfonamide group "because their action is neutralized by chemicals, by pus, and by dead bacterial cells." The validity of his warning has been established by the investigations conducted by subcommittees of the Committee on Medical Research of the Office of Scientific Research and Development.

The result of this work has been published by Dr. Frank L. Meleney in a report which should be read by every surgeon.[1] It covers the work of nine units set up at the Akron City Hospital, the Charity Hospital in New Orleans, the Cincinnati General Hospital, the Cook County Hospital, in Chicago, the Detroit Receiving Hospital, the Henry Ford Hospital, in Detroit, the Johns Hopkins Hospital, in Baltimore, the Massachusetts General Hospital, in Boston, and Presbyterian Hospital, in New York. The results are based on 2,191 complete records of cases studied over a period of twenty-two months. Of the 2,191 cases there were 926 soft-part wounds, 674 compound fractures, and 591 burns. For statistical purposes the groups were divided on the basis of common factors which might favor or minimize the development of infection. These factors include the time elapsed between the occurrence of injury and the time of operation, the amount of gross contamination of the wound, and the extent of tissue damage.

Of the 926 cases of soft-part wounds 17.6 per cent were infected. All of the patients were, of course, given adequate surgical treatment according to accepted standards, but 322 received no sulfonamide while the remaining 604 were treated with sulfonamides, either systemically, locally, or both. The total sulfonamide group had 20.4 per cent of infections compared with 12.4 per cent in the group treated with no sulfonamide.

It is probable that a majority of surgeons use sulfanilamide in the peritoneal cavity and believe that the drug is of particular value both in treatment of infection and as

[1] Meleney, Frank L.: Surg., Gyneo. & Obst. 80: 263 (1945).

a preventive. It will come as a shock to them that this study reveals a higher percentage of infection in the drug-treated cases than in the controls. In the controls there were 8 cases involving the alimentary tract without an infection among them.

Many cross tabulations were made in this study under the direction of eminent biostatisticians, but they only confirm the results already described. Dr. Meleney says, "No matter how we look at these results, we cannot find any evidence to support the idea that the use of the sulfonamides has lowered the incidence of infection in the accidental soft-part wounds which have been covered in this study."

The study of compound fractures includes fourteen tables, each covering a separate phase of the subject. Space does not permit even a summary of results, but in general they correspond with those obtained in wounds of the soft tissues. The result in one tabulation is so important that it should be mentioned. It has to do with the question of primary closure of the wound in compound fractures. The lowest rate of serious infections is in the wounds which were completely closed, while in those partly closed or left open the rate is high. The importance of tension in wound closure was also emphasized. In 265 cases in which closure was done without tension, there were only 6 per cent of serious and 6 per cent of trivial infections, while those closed with tension had 16.4 per cent serious and 21 per cent trivial infections. The report states, "This relatively low incidence of serious infections in compound fractures closed with tension cannot be attributed to the sulfonamides, for in 34 such patients receiving both general and local sulfonamide, there were 9 serious and 3 trivial infections while in 26 control cases there were only 1 serious and 8 trivial infections."

There is a distinct danger that belief in the efficacy of the sulfonamides in the local treatment of wounds may result in the neglect of sound surgical principles. As Dr. Allen O. Whipple says in his Foreword, "It is finally the unanimous opinion of the committee that, as always, the carrying out of the sound surgical principles of preventing and treating shock, of hemostasis, of removing nonviable tissue and foreign bodies, of repairing the wound with minimum tissue tension, of maintaining maximum nutrition to the tissues, of immobilization of the wounded part—in other words, sound surgery, is the *sine qua non* of wound therapy."

The study of burns was equally comprehensive, with cross tabulations giving comparisons of drug-treated burns and controls within various subgroups including the major factors concerned with wound infection. In this group also the evidence indicated that the local use of sulfonamides as prophylactic agents was of no value. On the other hand, it is stated that the sulfonamides have apparently been useful in treating cases of infection by reducing its spread from the original site.

An interesting observation in the study of burns is that pressure dressings with vaseline, boric acid, saline, or zinc peroxide gave the lowest incidence of infection while those patients treated with tannic acid had 100 per cent infection.

The following quotations from the report summarize the more important conclusions:

"The use of the sulfonamides as employed in these cases either systemically alone or locally alone, or combined, has not materially reduced the incidence or the severity of local infections in the wounds or burns nor have they delayed the development of infection nor have they eliminated the pathogenic organisms from the wounds. It seems likely, however, that they have minimized the spread of the local infection into the general circulation and have therefore cut down the incidence of septicemia and death. This has been accomplished by systemic drug therapy when infection developed in the controls, as readily as when the drugs have been used either locally or generally as prophylactic agents and employing them only as therapeutic agents after infection has developed. Omitting the routine early use of these drugs would avoid a great waste of material and many toxic reactions. . . .

". . . .Our carefully analyzed figures show that when the local conditions favored infection, the controls on the whole did better than the drug-treated cases. These are precisely the conditions in which it was hoped that the drugs might be of value. This tends to lend weight to the belief that the presence of devitalized or damaged tissue in some way inhibits the bacteriostatic action of the sulfonamides. . . .

"The results of this study have surprised many people and are presented with the keen disappointment of all of those who have worked on the

problem, for all hoped that something would be found which would prevent infections in these wounds However, the facts must be faced, the problems which they present must be understood and an attempt must be made to solve them, because in war wounds, local infection, even if it does not result in death, causes prolonged hospitalization and either temporary or permanent disability or deformity, frequently with loss of limb Effort must be made in the following directions (1) to find out what interferes with the bacteriostatic action of sulfonamides in the wound or on the surface of a burn (2) to find some way to inactivate the inhibitors, (3) to find some form of sulfonamide which will not be inhibited in the wound, (4) to find some other agent which will eliminate the bacteria from the wound or nullify their action without injury to the wound itself"

It should be emphasized that this report does not disparage the *systemic* use of the sulfa drugs On the contrary, it emphasizes their efficacy in limiting the spread of infections and preventing septicemia

The Legislature Acts Wisely

The Legislature of the State of New York deserves the highest praise of the medical profession for its assistance in maintaining the standards of medical practice in this State by refusing to pass the chiropractic bill

In protecting the standards of medical practice, the Legislature has once again served the public well There should be only one standard under which medicine or any other activity having to do with the health of the people can possibly be practiced in this state, and that is the highest standard By refusing to degrade the present medical practice act in any particular, the Legislature has acted wisely

The practice of medicine in these enlightened times is based upon scientific knowledge gained by years of experimental investigation by our trained scientists using the most modern equipment which industry has been able to put at their disposal The great body of factual medical knowledge has increased enormously and is available through the medical profession to the public It is true that it takes some time to disseminate this scientific knowledge and to create public acceptance of new things Methods by which new knowledge is disseminated through the medium of the medical profession and brought to public acceptance are also constantly improving There is no reason why archaic practices or unscientific procedures should be allowed to persist or to be foisted upon the public

Many people take the attitude that in refusing to pass the chiropractic bill the legislators have done a favor *for the doctors*, protecting their economic interests or some equally irrelevant rot Whereas, what the legislators have done, acting on the advice of scientists and educators, is to protect *the public interest* by insisting that only *one* standard of medical practice shall exist in this State Any chiropractor or naturopath, or, for that matter, any individual can practice medicine if he qualifies himself by required study and examination *as the doctors do, in recognized institutions of learning* The legislators recognize this fact, and insist that anyone who proposes to occupy himself with the lives and health of the people of the State shall be properly qualified It may be argued that this forces chiropractors to practice illegally, that they cannot be licensed If they practice illegally, they do so knowingly, and the people of the State have the mechanism of the courts to deal with such a situation Thus the legislators also realize

It is to be hoped that the doctors, scientists, and educators will support the legislators to the fullest extent in their consistent and well-fought battle to maintain the highest standards of medical practice for the people of this State

Dr. Wadsworth Retires as Director of the State Laboratories

Dr Augustus B Wadsworth retired as Director of the Division of Laboratories and Research of the New York State Department of Health after thirty-one years of continuous service He developed this important function from very unfavorable and

primitive conditions into one of the outstanding activities of the State, bringing to the work a well-grounded background of clinical practice and teaching together with his previous accomplishments in fundamental research. This constituted a new standard for public health laboratories in a state, a fact which became widely recognized both here and abroad. From small beginnings the laboratory facilities in Albany grew until its staff numbered over four hundred persons and the annual cost well over a million dollars. This expansion of service to physicians is shown by the increase of diagnostic and sanitary examinations from about 20,000 in 1914 to over 1,190,000 in 1940. In addition, therapeutic and prophylactic preparations reached a total of over 660,000 packages. Many other services were furnished and a policy of decentralization with local autonomy was established, which constitutes a unique achievement in public-health activities.

Dr. Wadsworth deserves the gratitude of the people of the State and the praise of the medical profession for his accomplishments. His successful career in this chosen field shows the evidence of a disciplined, well-prepared, and competent mind, the type of mind which should set an example for future appointments by governmental authorities. We of the JOURNAL extend our felicitations and good wishes to Dr. Wadsworth and his associates in the Department.

Current Editorial Comment

Of This and That

Can "deceleration" in medical education now be commenced? The *New England Journal of Medicine*[1] discusses this question fairly and comprehensively, stating that the Army has altered its contracts with the schools of medicine in such a manner that *until further notice* it will supply only 28 instead of 55 per cent of the student body. This reduction of 27 per cent is accompanied by a return to an annual period for the matriculation of future incoming classes on the part of the schools themselves.

These factors, it is pointed out, are not mutually harmonious. The Army has reduced the number of its trainees but still calls for continuous accelerated training, and the medical schools have reduced the frequency of entering classes but are not yet in a position to return to a twelve-month basis of training. To avoid confusion, it is considered that the question must now be decided whether an immediate return to the prewar timing of the curriculum is desirable. Of advantage perhaps to the brilliant student, the three-year course severely handicaps the more stable, hard-working, slower students. Time is necessary to mature and season a student in the latter group in which are often found the solid attributes of character and personality that contribute to the making of the best physicians.

The medical graduates of 1948–1949 are now commencing their training. The program should be adjusted to the conditions that will probably exist at that time. We concur in this reasoning. The problem would be simpler if more could be forecast concerning the conditions at that future time. The underestimation by the armed forces of the number of nurses they now need and the consequent inequitable proposal to draft them at present being considered, may be an indication that such an underestimation could happen with respect to the number of physicians the services may need, according to changes in the tactical situation. The war is hardly over yet, and the demands of the putative peace remain to be estimated.

Deceleration is wholly to be desired from the point of view of scholarship and in the interest of more thorough training. It is encouraging to us that the possibility now exists for a return to annual matriculation for medical students.

[1] Dec. 14, 1944.

Announcement

In the interest of returning medical veterans the War Participation Committee would like to know of any physicians in the State who are willing to employ discharged veterans as temporary assistants. Please reply to the War Participation Committee, 292 Madison Avenue, New York 17, stating the number of assistants you can use, the nature of your practice, and the length of time you would like to have such assistants serve.

GASTRIC MUCOSAL ATROPHY AND CARCINOMA OF THE STOMACH

ARTHUR PURDY STOUT, M D , New York City

(From the Surgical Department of the Presbyterian Hospital and the Laboratory of Surgical Pathology, Columbia University)

THE relationship of chronic gastritis, especially what is usually called chronic atrophic gastritis, to carcinoma of the stomach has been the subject of several recent investigations from the pathologic aspect, with the result that a difference of opinion has arisen

Some years ago Konjetzny (1938)[1] in Germany and Hurst (1929)[2] in England came to the conclusion that chronic gastritis was a definite precancerous lesion Guiss and Stewart[3] have challenged this In 1943 they published the results of an elaborate pathologic statistical study of 293 stomachs of individuals of all ages and conditions including 73 with gastric cancer They came to the conclusion that "there is no evidence to suggest an etiologic relationship other than that chronic atrophic gastritis may be caused or intensified by the presence of carcinoma in the stomach" They noted that "atrophic gastritis is an exceedingly common condition with advancing age" Further, they remarked 'To assert on morphologic grounds that the origin of gastric cancer depends on the existence of gastric atrophy would require far more evidence It would at least require proof that early gastric cancer begins in, and can be directly traced to, an area of atrophy to the exclusion of other areas" They feel that this proof is lacking In 1944, Warren and Meissner,[4] in a similar fashion, examined the mucosa of 356 stomachs which were removed for gastric cancer or peptic ulcer Like Guiss and Stewart they divided the changes of chronic gastritis into exudative and epithelial and agreed that the purely inflammatory lesions had no significance as precancerous changes, but they felt that the epithelial changes could be compared to well-recognized premalignant changes elsewhere in the body They, therefore, assert that it may be assumed that some gastric cancers arise on the basis of these changes

These two opinions fairly represent the two opposing schools of thought Arrayed on the side of Warren and Meissner are Usland (1935),[5] Jenner (1939),[6] Judd (1942),[7] and Jankelson, McClure, and Freedberg (1943),[8] who believe there is some direct sequential relationship between chronic gastritis and cancer Among those who can find no evidence of a causal relationship between the two may be cited Gutmann, Bertrand, and Péristiany (1939)[9] and Maher and her associates (1943) [10]

In the laboratory of Surgical Pathology, Columbia University, we have accumulated a number of surgically resected stomach specimens which have all been treated in the same fashion by opening along the greater curvature, pinning out on a cork board, fixing in Bouin's fluid, and then taking ten or more sections from different areas according to a definite plan There were thus made available multiple sections from 150 stomachs, 50 with gastric carcinoma, 50 with gastric ulcer, and 50 without gastric ulcer or carcinoma which were removed because of duodenal ulcer It seemed worth while to study this material to see if any further information could be elicited which would be of value in deciding whether or not morphologic changes in the gastric mucosa can be regarded as precancerous

A perusal of the various studies of gastritis shows that the purely inflammatory changes, such as the development of lymphoid follicles and the diffuse infiltration of inflammatory cells in the mucosa, edema, and fibrosis have no demonstrable relationship with the development of carcinoma Most of them are commonly present to some degree in all resected stomachs For instance, lymphoid follicles were present in 148 of our 150 specimens, although their numbers varied greatly Therefore it seemed wise to concentrate upon the epithelial changes in the gastric mucosa Some of these are very difficult to evaluate For example, an increase in the thickness of the mucosa in various parts of the stomach is sometimes said to be due to hyperplasia of the glands and is one of the criteria of so-called hyperplastic gastritis (Schindler and Ortmayer, 1942) [11] I have never been able to convince myself that such hyperplasia actually occurs because there are so many sources of potential error, for example, any increase in the cell and fluid content of the substantia propria will increase the thickness of the mucosa and any deviation from the perpendicular in cutting will result in a tangential section which gives a false appearance of thickening After careful study of our own material and perusal of the published work of others, three histologic features were selected for special analysis These were (1) the transformation of the gastric mucosa into a mucosa of the intestinal type which is commonly called intestinal metaplasia (Fig 1), (2) a loss of the characteristic gastric glands with their chief and parietal cells in the fundic portion of



FIG. 1. Photomicrograph of atrophic gastric mucosa from the lesser curvature of the antrum showing marked intestinal metaplasia and cyst formation.

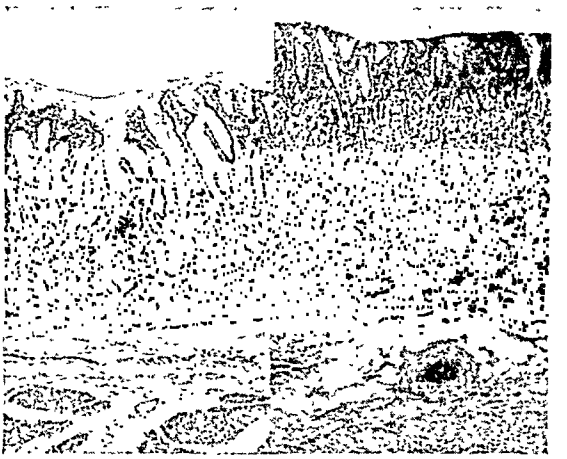


FIG. 2. Photomicrographs taken at the same magnification showing mucosa of the pyloric type at the left and of the fundus type at the right.

the stomach and their replacement by a mucosal pattern characteristic of the pylorus and antrum, which for convenience will be referred to as pylorization of the fundus (Fig. 2); and (3) the development of microscopic mucosal cysts (Fig. 1).

The first two features mentioned above are the most striking and important changes of gastric mucosal atrophy. The mucosa is occasionally thinned by these processes but usually it is not. Intestinal metaplasia is most commonly found affecting small patches of the pyloric and antral mucosae. Less often the fundus is also involved. It varies from the transformation of a single isolated gland (Fig. 3) to the involvement of almost the entire stomach mucosa. It is easily recognized, for the cell nuclei are much more deeply stained, the mucus secreted is easily and deeply stained with mucicarmine and other basic dyes, and Paneth cells, which are never found in normal gastric mucosa, appear. Pylorization of the fundus is also easily determined because of the striking difference between the appearance of fundic and pyloric mucosae. In the pylorus and antrum the pits extend deeply half way through the mucosa, and the underlying glands have exceedingly few chief and parietal cells, while the fundus mucosa has shallow pits and its glands are made up almost exclusively of chief and parietal cells. The pyloric type of mucosa normally covers the distal five or six centimeters of the stomach, ending very abruptly at its junction with the fundus mucosa. If it is found proximal to this, it is regarded as an abnormal and atrophic change. These two changes are both regressive ones in which highly specialized cells are replaced by simpler ones capable of secreting mucus. Since the vast majority and perhaps all gastric carcinomas are composed of cells capable of secreting mucus, it is reasonable to investigate them together

The third change in the epithelium is dilatation of the pits or glands with the formation of small cysts (Fig. 1). These are easy to recognize in sections but not so easy to evaluate. There seem to be two different reasons for their formation. They may result from simple obstruction of a pit or gland or from the process of gland regeneration following injury.

Because all cyst formation could not be definitely related to the first two changes, it seemed wisest to study it independently, and it will be discussed later in this paper.

Intestinal Metaplasia and Pylorization of the Fundus

Table 1 shows that these changes are present in half of the stomachs with duodenal ulcer, three-fifths of those with gastric ulcer, and 94 per cent of the stomachs with gastric cancer. Moreover, the difference is much accentuated by the fact that the degree of involvement tends to be much greater in the gastric carcinoma group. However, although the three groups are strictly comparable according to sex (duodenal ulcer—male 38, female 12; gastric ulcer—male 37, female 13; carcinoma—male 38, female 12) they are not so according to age, for there is an ascending progression in the mean ages of the three groups. Table 2 shows the distribution of these lesions according to age groups. Now it can be observed that there is a steady increase

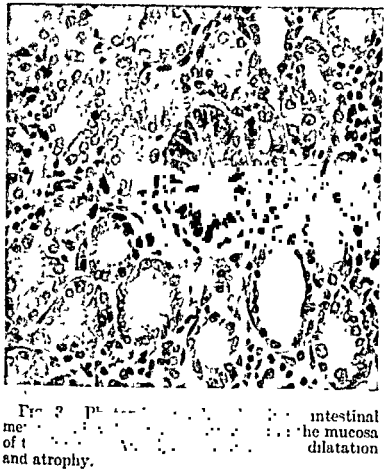


Fig. 2.—Pl... intestinal me... the mucosa of t... dilatation and atrophy.

in the incidence and size of area of mucosa involved from the third decade, when it first appeared, to the eighth decade, when every stomach showed a considerable degree of involvement. From this chart one must conclude what others have done before: that atrophic changes are found in the stomach with increasing frequency with advancing years until in old age possibly every stomach shows some evidence of mucosal atrophy.

In order to neutralize the age factor to the greatest possible degree, stomachs with and without cancer removed during the sixth decade of life were compared. The results are given in Table 3. This shows that the incidence and the degree of atrophy are considerably greater in stomachs with cancer than in those without cancer. If we move to the older age groups and

TABLE 1.—PERCENTAGE OF INTESTINAL METAPLASIA AND/OR PYLORIZATION OF THE FUNDUS IN 150 STOMACHS RESECTED FOR DUODENAL AND GASTRIC ULCER AND FOR CARCINOMA

	No Cases	Absent	Present	Slight	Medium	Marked	Mean Age (Years)
Duodenal ulcer	50	50	50	28	20	2	44 3 (17–69)
Gastric ulcer	50	38	62	12	30	20	49 6 (25–71)
Gastric carcinoma	50	6	94	16	14	64	56 3 (33–78)

make the same comparison in patients over 59 years of age there is a smaller difference between the numbers involved but still considerable difference in the degree of involvement (Table 4). So far it has been shown that the atrophic stomach is apparently a favorable site for the development of carcinoma, but it has not been shown that either intestinal metaplasia or pylorization of the fundus are changes which can lead directly to cancer formation. To do that one should be able to note either that the carcinoma always occurs in an area where these changes have occurred or one should be able to trace gradations between the altered epithelium and the cancer cells. Such gradations can be noted in many skin epitheliomas developing, for example, in radiated areas or in arsenical keratoses, and they can be found in the adenomatous polyps of the gastrointestinal tract, so that no hesitation is felt in describing these as precancerous lesions. It is impossible to state whether or not carcinomas originate in atrophic mucosal spots, for no one observes the beginning of a carcinoma. It can only be said that the environs of the carcinoma when it is removed frequently show no atrophic changes, although other parts of the same stomach may do so and in three of the 50 specimens no atrophy was found anywhere. Perhaps the most favorable type of carcinoma to study is the superficial spreading cancer, or

TABLE 2.—PERCENTAGE OF INTESTINAL METAPLASIA OF THE GASTRIC MUCOSA AND/OR PYLORIZATION OF THE FUNDUS IN 150 STOMACHS RESECTED FOR DUODENAL AND GASTRIC ULCER AND GASTRIC CARCINOMA AT DIFFERENT AGES

Age	No Cases	Absent	Present	Slight	Medium	Marked
17	1	100 (1)	....	.	..	
20–29	5	80 (4)	20 (1)		(1)	..
30–39	26	70 (18)	30 (8)	(7)	(1)	.
40–49	32	34 4 (11)	65 6 (21)	(5)	(8)	(8)
50–59	52	27 (14)	73 (38)	(8)	(13)	(17)
60–69	30	6 7 (2)	93 3 (28)	(6)	(6)	(16)
70–78	4	0	100 (4)	-	(1)	(3)

Figures in parentheses indicate actual number of cases.

TABLE 3.—Percentage of Intestinal Metaplasia and/or Pylorization of the Fundus in Patients in the Sixth Decade With and Without Carcinoma of the Stomach

	No. Cases	Absent	Present	Slight	Medium	Marked
Without carcinoma	30	40 (12)	60 (18)	44.4 (8)	33.3 (6)	22.3 (4)
With carcinoma	22	9.1 (2)	90.9 (20)	15 (3)	20 (4)	65 (13)

Figures in parentheses indicate actual number of cases.

TABLE 4.—Percentage of Intestinal Metaplasia and/or Pylorization of the Fundus in Patients Over 59 Years With and Without Carcinoma of the Stomach

	No. Cases	Absent	Present	Slight	Medium	Marked
Without carcinoma	15	13.3 (2)	86.7 (13)	38.5 (5)	15.4 (2)	46.1 (6)
With carcinoma	19	5.3 (1)	94.7 (18)	5.5 (1)	22.3 (4)	72.2 (13)

Figures in parentheses indicate actual number of cases.

cancer *in situ*, for one frequently finds traces in this of mucosal glands intermingled with cancer cells. After long and attentive study it has never been possible for me to find convincing evidence of gradations of change from atrophic cell to cancer cell. When the tumor is well differentiated and forms glands, which is rather infrequent, one can always explain the juxtaposition of cancerous and noncancerous glands on the basis of invasion of the latter by the former.

Mucosal Cysts

Tables 5, 6, and 7 show an analysis of the stomachs based upon the presence or absence of mucosal cysts. These indicate that cystic dilatation of the glands is much more frequent in stomachs with cancer than in those without cancer and that this feature becomes increasingly more frequent with advancing age but is disproportionately greater in stomachs with carcinoma. When the individual cases are studied it is found that the solitary sporadic cysts occur usually without any demonstrable relationship with carcinoma, but that most of the stomachs with frequent mucosal cyst formation (Fig. 1) also have cancers and that the cysts sometimes are more numerous in the vicinity of the carcinoma. One gets the impression that there is a certain degree of cellular disturbance in the immediate vicinity of some carcinomas, one feature of which is the development of cysts. On rare occasions a cyst can be found which is lined in part by cancerous and in part by noncancerous cells. But even such a phenomenon cannot be regarded as proof of the development of carcinoma from a cyst, for it can with equal propriety be explained as an invasion of the cyst by carcinoma.

TABLE 5.—Percentage of Cystic Dilatation of Mucosal Glands in 150 Stomachs Resected for Duodenal and Gastric Ulcer and for Gastric Carcinoma

	No. Cases	Absent	Present
Duodenal ulcer	50	88 (44)	12 (6)
Gastric ulcer	50	80 (40)	20 (10)
Gastric carcinoma	50	28 (14)	72 (36)

Figures in parentheses indicate actual number of cases.

TABLE 6.—Percentage of Cystic Dilatation of Mucosal Glands in 150 Stomachs Resected for Duodenal and Gastric Ulcer and Gastric Carcinoma at Different Ages

Age	No. Cases	Absent	Present
17	1	100 (1)	0
20–29	5	80 (4)	20 (1)
30–39	26	88.5 (23)	11.5 (3)
40–49	32	68.7 (22)	31.3 (10)
50–59	52	67.3 (35)	32.7 (17)
60–69	30	43.3 (13)	56.7 (17)
70–78	4	0	100 (4)

Figures in parentheses indicate actual number of cases.

Discussion

This study confirms the findings of others that mucosal atrophy may appear as early as the third decade and is found with ever increasing frequency and extent in the succeeding decades of life. Moreover, in comparable groups of stomachs mucosal atrophy is found in a larger

TABLE 7.—Percentage of Cystic Dilatation of Mucosal Glands in Patients Over 49 Years of Age with and Without Gastric Carcinoma

	No. Cases	Absent	Present
Without carcinoma	45	82.2 (37)	17.8 (8)
With carcinoma	41	24.4 (10)	75.6 (31)

Figures in parentheses indicate actual number of cases.

number and tends to be more widespread in those with cancer than in those without cancer. But when one tries to find actual progression from altered mucosal glands, be they of the gastric or the intestinal type, cystic or not, distorted or regular, it is realized that it is impossible to tell, when there is juxtaposition of carcinoma and mucosal gland, whether the carcinoma is invading the gland or developing from its epithelial cells. Further, it can be stated that in occasional stomachs with carcinomas in them, multiple sections from various areas fail to show any epithelial changes at all in some while others show only minimal changes.

It would seem, therefore, that while atrophy of the gastric mucosal epithelium and cyst formation are present to a greater degree and in larger numbers in stomachs with carcinomas than in comparable stomachs without cancer, the exact relationship between these two conditions remains undetermined.

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A SURGEON ON WAR AND PEACE

Col. Elliott C. Cutler, chief consultant in surgery, AUS, European [illegible] Professor of Sur[illegible] livered on May [illegible] bridge, England [illegible] ject "A Surgeon [illegible]" Cutler's lecture, in abridged form, has appeared as the leading article in the September 30 issue of the *Lancet*.

[illegible] vanced to explain this experience. Chief among these explanations rank an easier discipline in our army of today, leaving an avenue of escape open for the battle-weary soldier, inferior leadership by subaltern officers, and a loss of self-sufficiency and independence in a country where overpaternalism has softened the population.

In particular, Colonel Cutler emphasizes the military value of hate in carrying a war through to its successful conclusion; he points out that it is a military fault of the English and Americans that they are naturally peace-loving and have as yet [illegible] mitted against ourselves.

Future opportunities for Germany to fling herself at the throats of civilized mankind must be denied, and Colonel Cutler closes his lecture on the note that those who make the peace must this time be those who have been to war and know what it means. It is expressly stated that war must be waged in hate, and it is implied that hate must not be forgotten when the peace is made.

In the same issue of the *Lancet* is one of the sanest and most temperate editorials that it has been our fortune to read—an editorial that bespeaks the innate fair-mindedness of the British nation. We are reminded that this war is not between men and a different species, but between men and men, in whom all the human elements are mixed. True, our adversaries have been led into intolerable deeds by their psychologic immaturity, but "five years have not changed our opinion that a peace of understanding has more permanence than a peace of passion."

"The young men who now command our thoughts and bear our hopes," the editorial continues, "are often heroes but seldom fanatics; and for our part we should say that one of their greatest achievements with [illegible] I sow [illegible] tion, to help young Germans feel it an adequate purpose in life to rebuild out of the ruins the Germany of Kant and Goethe and Beethoven—to whom we might add Virchow, Koch, and Ehrlich, or others according to taste."—*New England J. Med., Jan. 4, 1945*

OBSERVATIONS ON THE USE OF A NEW MATERIAL FOR CHOLECYSTOGRAPHY (PRIODAX)

A Preliminary Report

Lois C. Collins, M.D., and Ross Golden, M.D., New York City

(From the Department of Radiology of the College of Physicians and Surgeons, Columbia University, and the Radiological Service of the Presbyterian Hospital, New York)

A NEW contrast medium for cholecystography has recently been introduced, and numerous articles describing its results have been published. The substance, beta-(4-hydroxy-3,5-diiodophenyl) alpha-phenyl-proprionic acid, was first produced by Dohrn and Diedrich,[1] who found this substance to fulfill most of the postulates of the ideal contrast medium for cholecystography. It was one of a series of approximately twenty-eight iodine-containing substances which they produced and tested. First used in Germany under the name of Biliselectan, reports from at least four different European clinics describing apparently satisfactory results have appeared in the German literature.[2–5] It is now produced under different trade names by at least two manufacturers in this country.

Since November, 1943, at least seven reports have appeared in the American literature. All have agreed that the substance was as satisfactory as, or more satisfactory than, tetraiodophenolphthalein for visualization of the gallbladder. There was some difference of opinion concerning the dosage, and also concerning the side effects of the substance.

Dannenberg,[6] in reporting a series of 143 cases, and Bryan and Pedersen,[7] reporting 845 cases, felt that 3 Gm. were satisfactory, and did not find repeat examinations necessary in any of their cases. Einsel and Einsel[8] were of the same opinion. Wasch,[9] Hefke,[10] and Paul, Pohle, and Benson[11] felt that 3 Gm. were usually sufficient but that in a certain number of instances the gallbladder was unsatisfactorily visualized and a second 3 Gm. dose was advisable. Marshall[12] used 6 Gm. in a series of 50 cases. The majority of reports stated that the side effects with the new drug seemed definitely less than with tetraiodophenolphthalein. Only one direct comparison between the two methods was reported. Paul, Pohle, and Benson examined 46 of their cases with both drugs and found little difference in the incidence of symptoms except the nausea. Nausea occurred in 28 per cent of the patients who had the new substance and in 45 per cent of those who had tetraiodophenolphthalein.

Chemistry and Pharmacology

The new substance has a simpler, smaller molecule than tetraiodophenolphthalein. Although each molecule of the former has only two iodine radicals as opposed to four in the latter, the percentage of iodine is almost as high. The new material contains 51.5 per cent iodine by weight, as opposed to 61.6 per cent in the phenolphthalein preparation. It is a white powder with a sharp taste, and is very slightly soluble in water or fruit juice. It can be administered in suspension, or swallowed in tablet form. The soluble form, the sodium salt, makes a too highly alkaline solution to be practical for intravenous use.

Junkmann[13] found that Biliselectan, given intravenously in 10 per cent solution, was less toxic to rats than tetraiodophenolphthalein used in the same way. The average fatal dose of the new drug was 0.39 Gm. per kilo of body weight, and of tetraiodophenolphthalein, 0.31 Gm. However, when given orally, the rats tolerated a larger dose of tetraiodophenolphthalein, presumably because it is less completely absorbed from the intestinal tract. Modell's[14] work with cats gave approximately the same results. The LD 50 when given intravenously was 150 mg. per kilo, but when given orally 1,000 mg. per kilo was tolerated. Transient albuminuria occurred when the larger doses were given over a period of days, but no significant histologic changes were demonstrable in the kidneys.

Physiology

The substance is absorbed from the small intestine rapidly and almost completely. The small size of the molecule is probably one of the most important factors in the rapidity of absorption. The substance is apparently carried through the portal vein to the liver, where it is excreted through the biliary radicals and concentrated in the gallbladder. The substance is eliminated from the body principally through the kidneys, from 61 to 83 per cent (Junkmann) appearing in the urine within seventy-two hours. Although it is uncertain whether a chemical change occurs during the process of excretion through the liver, the substance in the urine is, in large part, chemically unchanged.[13] Splitting off of the iodine does not occur and no cases of iodism have been reported.

Apparently the material, after expulsion from the gallbladder, must be reabsorbed from the

TABLE 1.—195 EXAMINATIONS

Dose	3 Gm		4 Gm		6 Gm	
No Cases	66		25		104	
Interpretation	normal	abnormal	normal	abnormal	normal	abnormal
No Examinations	40	26	19	6	68	36
No Operated Upon	2*	10			1	12†

* In one case cholesterosis was found
† Gallbladder was normal in one case Patient was jaundiced at time of the examination

small intestine repeatedly, each time this happens a smaller amount passes through the gallbladder and the remainder is excreted through the kidneys, until most of it has been eliminated in the urine For this reason the gallbladder shadow can be seen on the second and third days If the shadow after the first dose is unsatisfactory, an immediate second dose has been suggested as a method of increasing the density in the gallbladder This was used by Wasch, Hefke, and Paul, Pohle, and Benson with a little improvement in the density of the shadows of the cases

Material

This report is concerned with 195 cases in which this new substance* has been used The dose and certain details in the method of administration have been varied during this period The first patients received 3 Gm suspended in water or fruit juices Later, two 3-Gm doses were given, one at 4 P M and the second at 8 P M Still later the material was furnished in the form of 0 5-Gm tablets, to be swallowed without suspension in fluid The first tablets were not coated and occasionally patients complained of burning in the back of the throat after taking them The present form is a coated 0 5-Gm tablet Beginning at 4 P M the patients are given two tablets every half hour until the desired dose has been taken

The patients have a fat-free supper at 6 30 or 7 00 P M, and the following morning are allowed orange juice, tea, or coffee with sugar but without cream, and dry toast if desired The first films are taken at 9 00 A M and the routine fat meal given as usual We have used 3-Gm, 4 Gm, and 6 Gm doses, the results of which will be discussed later

Table I shows the number of cases examined by each dosage method, and the number of cases interpreted as normal and abnormal in each group Three of the cases interpreted as normal were checked by operation, and the diagnosis

TABLE 2.—ANALYSIS ACCORDING TO DENSITY

Dose	3 Gm	4 Gm	6 Gm
Cases	38	22	64
Borderline Density	2 (5 %)	2 (7 %)	1 (2 %)
Fair Shadow	8 (21 %)	3 (14 %)	8 (13 %)
Good Shadow	28 (72 %)	17 (77 %)	55 (86 %)

Fair density and good density—unquestionably normal
Borderline density—questionable whether normal or not

found incorrect in one case This case proved to be cholesterosis In the group interpreted as pathologic, 22 cases were checked by operation and in all but one the diagnosis was confirmed The one patient in whom the gallbladder was found to be normal at operation had been jaundiced at the time of the examination

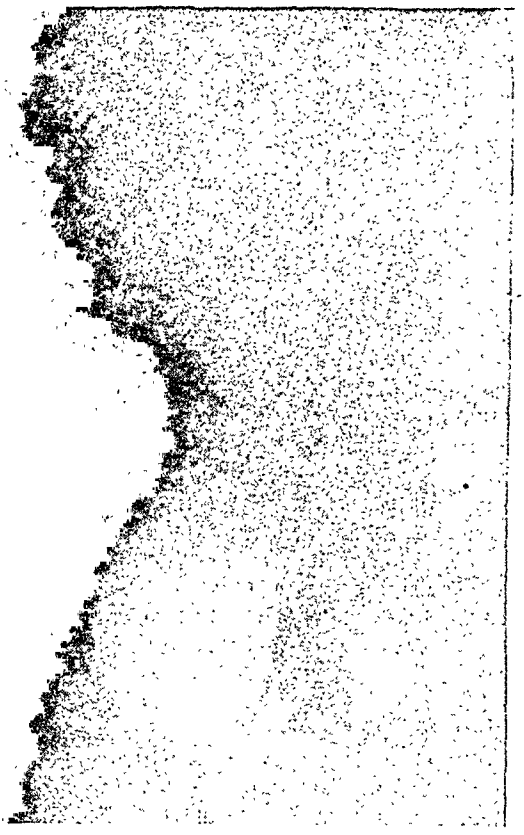
The cases that were interpreted as normal were divided according to the density of the shadows, as shown in Table 2 The shadows classified as having fair and good density were all of sufficient density that they would be called normal without hesitation The borderline density refers to a shadow that leaves doubt as to whether it is within normal limits It is interesting to note that the percentage of good shadows becomes slightly higher as the dose is increased The two patients who had borderline shadows with 3 Gm doses were re-examined with 6 Gm and in both cases the shadow was a little better on the second examination, putting them definitely in the normal group A third case examined by the 3 Gm dose, which showed a poor shadow, was re-examined with 6 Gm and showed no increase in the density of the shadow This was interpreted as pathologic

We have had the impression at this time that a 4-Gm dose is more likely to give a good shadow than a 3 Gm dose, and therefore the latter is probably the most satisfactory for routine use However, it will undoubtedly be necessary to give a second dose in a few cases that have shadows of borderline density

In 10 cases previous examinations with tetraiodophenolphthalein had been done In 8 of the cases the results with the new and the old substance were the same (Fig 1) In one case the patient had been jaundiced and showed no gall-







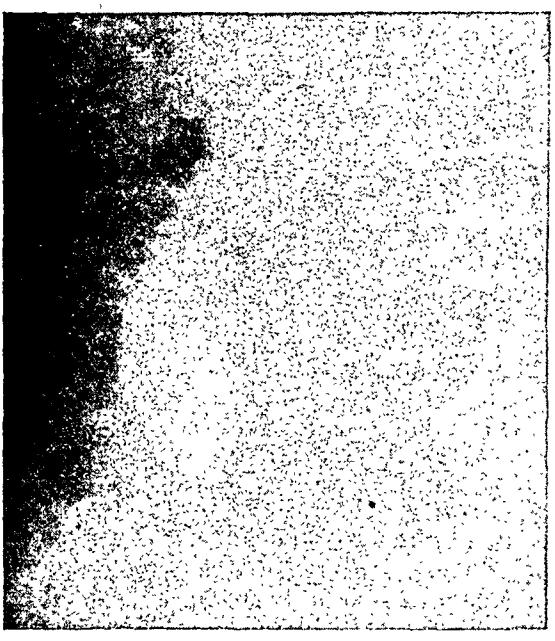


FIG. 1. Normal gallbladder. A and B—Films taken nineteen hours and twenty-one hours after the first of two 4-Gm. doses of tetraiodophenolphthalein. Opaque material is present in the hepatic flexure.

C and D—Same case examined six years later with 6 Gm. of the new substance. No opaque material is present in the hepatic flexure. The density in the gallbladder is similar to that of the previous examination.

TABLE 3.—SIDE EFFECTS, AUTHOR'S SERIES

	Tetraiodophenolphthalein 8 Gm.	New Substance, 3 Gm.			New Substance, 4 Gm.			New Substance, 6 Gm.			New Substance, Total
		Total	Normal	Abnormal	Total	Normal	Abnormal	Total	Normal	Abnormal	
No. Cases	100	66	40	26	25	19	6	104	68	36	195
Nausea	47	17 (26 %)	13 (33 %)	4 (16 %)	3 (12 %)	2 (11 %)	1 (17 %)	36 (35 %)	24 (35 %)	12 (33 %)	56 (28 %)
Vomiting	6	3 (5 %)	2 (5 %)	1 (4 %)				10 (10 %)	5 (7 %)	5 (14 %)	13 (7 %)
Diarrhea	34	22 (33 %)	12 (30 %)	10 (38 %)	13 (52 %)	12 (63 %)	1 (17 %)	47 (45 %)	29 (43 %)	17 (47 %)	92 (47 %)
Cramps	6	7 (11 %)	4 (10 %)	3 (12 %)				3 (3 %)	2 (3 %)	1 (3 %)	10 (5 %)
Burning	...	2 (3 %)	1 (3 %)	1 (4 %)				6 (6 %)	6 (9 %)		8 (4 %)
No Symptoms	38	27 (41 %)	18 (45 %)	9 (35 %)	11 (48 %)	7 (37 %)	4 (67 %)	36 (35 %)	6 (9 %)	12 (33 %)	74 (38 %)

bladder shadow at the time of the previous examination and showed a normally functioning gallbladder on the second examination. In the other case there had been no gallbladder shadow with the tetraiodophenolphthalein, and there was a faint shadow with the new substances. Both examinations were interpreted as indicating gallbladder pathology.

Paul, Pohle, and Benson examined 46 cases by both tetraiodophenolphthalein and the new drug. In 41 cases the results were the same. In 2 cases the shadow was a little better with tetraiodophenolphthalein, and in 3 cases a little better with the new substance.

The incidence of undesirable side effects has been a little higher in this series than in other series which have been reported. Our patients were questioned concerning the occurrence of any unusual symptoms, and specifically about the occurrence of nausea, vomiting, diarrhea, and cramps. Any loose movements were interpreted as diarrhea. No attempt was made to classify the symptoms according to severity. For purposes of comparison, 100 patients who were examined with tetraiodophenolphthalein were questioned in the same way. The routine with tetraiodophenolphthalein has been to give two 4-Gm. doses, having preceded each dose with 6 cc. tinct. opii camphorata. Paregoric has not been used with the new substance.

The incidence of these symptoms is shown in Table 3. There was surprisingly little difference in the occurrence of the symptoms, except for the nausea, which was only about half as frequent with the new drug. Vomiting and cramps occurred with about equal frequency with each drug. Diarrhea was a little more frequent with the new drug, the increase being principally in the larger dose groups. Two of the patients who were examined with both 3- and 6-Gm. doses had no diarrhea with 3 Gm., but had rather severe diarrhea after 6 Gm.

Burning on urination occurred in 4 per cent of the cases. It does not occur with tetraiodophenolphthalein, which is excreted through the colon. The percentage of symptom-free patients was the same with both drugs in this series.

The incidence of symptoms in general increased

TABLE 4.—SIDE EFFECTS FROM THE LITERATURE

	No. Cases	No Symptoms, Percentage	Nausea, Percentage	Vomiting, Percentage	Diarrhea, Percentage	Dose Used, Gm	No. Exam. Repeated	Improved Density
Wasch								
New substance	134	32	19	..	13	3	33	11
Marshall					Most,			
New substance	50	..	..	..	1 Severe	6	..	..
Ochsner								
New substance	300	56	26	10	15	.....	..	..
Dannenberg								
New substance	143	6	17	3	23	3	..	..
Bryan and Pedersen								
New substance	845	..	20	2	33	3	..	..
Hefke								
New substance	600	..	8	0 08	11	3	30	1
Paul, Pohle, and Benson								
New substance	114		28.1	2	22.8	3	16	3
Tetraiodophenolphthalein	80	..	45	5	28.7	3	5	2
Presbyterian Hospital								
New substance	195	38	28	7	47	3-4-6	3	3
Tetraiodophenolphthalein	100	38	47	6	34	8	..	..

as the dose was increased. The apparent discrepancy in the figures for the 4-Gm. series was not considered significant because the total number of cases in this series was relatively small.

The incidence of symptoms as reported in the literature has been tabulated in Table 4 with our figures for comparison.

Paul, Pohle, and Benson, who studied 80 cases with tetraiodophenolphthalein and 114 cases with the new drug, found no significant difference in the incidence of symptoms except for nausea; their figures resembled ours in that respect. However, the incidence of diarrhea with both drugs was lower in their series, as it was in all of the other reports. Since these are all subjective symptoms, it is easy to understand how a wide variation in the evaluation of symptoms may occur. Hefke, for instance, described diarrhea as two or more watery movements, whereas our figures include cases with only one loose movement.

The most striking advantage of the new drug is the absence of opaque material in the hepatic flexure (Fig. 1C and D). In no patient examined was it necessary to give an enema to remove the opaque material from the colon. With tetraiodophenolphthalein an enema is frequently necessary, and unfortunately, it is not always completely satisfactory to remove from the colon the portion of the opaque material which has not been absorbed. The new substance is present in the colon only in traces, if at all. This fact, in our experience, has not interfered with the visualization of the gallbladder.

A series of cases are now being studied with a view to determining whether the doses used for cholecystography are associated with objective evidence of a disturbance in the kidney function. At the present time only a few cases have been studied but none of them has shown a depression in phenolsulphonephthalein excretion nor have they shown albuminuria. In view of the observations in animals and in view of the burning on urination mentioned by some patients, further studies along this line are indicated.

Conclusions

1. Beta-(4-hydroxy-3,5-di-iodophenyl) alpha-phenyl-proprionic acid appears to be a satisfactory medium for cholecystography.

2. With 4- and 6-Gm. doses the shadows seem, on the average, to be slightly more dense than with the 3-Gm. dose, but in individual cases the 3-Gm. dose produces a dense shadow.

3. There is less nausea with the new drug than with tetraiodophenolphthalein, but otherwise there is no striking difference in the occurrence of symptoms with the two drugs. Burning on urination occurs only with the new substance.

4. Because of the absence of opaque material from the hepatic flexure, the new substance gives more satisfactory visualization of the gallbladder than tetraiodophenolphthalein, although the density with the two drugs is approximately the same.

5. A preliminary study of kidney function has shown no evidence of kidney damage following the doses described above.

622 West 168th Street
New York City

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HEAD-WOUND GAS MASK NOW IN PRODUCTION

A gas mask to protect head-wound patients from war gas has been developed by the Chemical Warfare Service at the request of the Medical Department, and is now in production, the War Department has announced.

The mask is the first such device especially designed to protect patients with bandaged heads, faces, or jaws. It consists of a silk-like plastic hood to which an air-purifying canister and an outlet valve are attached. A flexible window across the eyes provides clear vision. Air is drawn into the mask by the ordinary breathing of the wearer.

The mask is pulled over the head like a sack, and experiments at the Medical Research Laboratories have shown it to be comfortable to the wearer as well as efficient.

PRESBYCARDIA, OR AGING OF THE MYOCARDIUM

WILLIAM DOCK, M.D., Brooklyn, New York

(From the Department of Medicine, Long Island College of Medicine)

PHYSICIANS have long been misled by the saying that a man is as old as his arteries. As a matter of fact, the arteries have very little to do with the aspects of aging which alter our appearance and behavior as we grow older, and pure involutional processes in the arteries rarely are responsible for disease or death in the aged. Our scalps become bald, our faces wrinkled, our hairs gray in spite of the persistence of a rich blood supply to the skin. Neurones die and disappear from our cerebral cortex, our basal nuclei and cerebellum, and even from our spinal cords, in spite of an excellent blood supply and the complete absence of any vascular sclerosis.[1,2] Senile behavior, emotional or apathetic, with poor memory and judgment, is often erroneously spoken of as caused by "cerebral arteriosclerosis." It is usually due to disseminated cortical atrophy of the cerebrum.[3,4]

Men like Pasteur may suffer repeated strokes and yet have little cortical atrophy, remaining alert and highly competent into old age. Others become prematurely senile at 40 or 50, due to cortical atrophy, and show no arteriosclerosis. Parkinson's disease, senile intention tremor, and the decline of athletic prowess or creative ability may begin in the 30's and may become marked in people with no cerebral vascular disease. These changes are due to the loss of neurones, which in men and other mammals begins soon after maturity and continues at various rates in different individuals and in different areas. This trophic loss of neurones, like that of scalp hair or of hair pigment, has a familial pattern and pace, and is independent of the state of the arteries. The skin, hair, and brain determine how old we look and act, so that a man may truly be said to be as old as his ectoderm.

While arterial involution is rarely the basis of damage to the brain, it seems probable that in many people hypertension of the type classified as "benign" is due in part to the involution of the central nervous system. Transient rises in blood pressure are not rare in adolescence, but are seen in more individuals during the succeeding decades, occur more often, last longer, and eventually lead to an almost constant hypertension during activity, and even during sleep.

The increasing number of new cases of hypertension during the fifth, sixth, and seventh decades[5] cannot be accounted for either by renal vascular changes[6,7,8] or by known endocrine or emotional factors. Indeed, while many of the vascular and visceral disturbances which seem linked with emotional stress—peptic ulcer, migraine, and Raynaud's disease, for example—pass their highest frequency of onset and decrease during the later decades of life, this is the age when hypertension most often becomes fixed. Tics of voluntary muscles become more frequent with age, lacrimation often is more readily evoked by cold or by emotion, and the carotid sinus reflex may be more easily elicited in older people. Therefore, it is not unreasonable to suspect that the establishment of sustained hypertension often is due to changes in central inhibition and that such cases belong in the same etiologic category as the tics, tremors, and rigidity of senescence. There is impressive evidence that in people on the American dietary hypertension is a very important factor in determining the severity and localization of atherosclerosis.[6,7] Therefore, vascular disease, leading to disability and death, may be a sequel of one type of neural aging, and a result rather than the cause of decay of the central nervous system.

The changes in the arteries due to age—medial calcification and medial fibrosis—rarely cause any vascular dysfunction, while the familiar vascular accidents and diseases are due largely to intimal damage secondary to cholesterol deposits.

These deposits are rarely seen in people who have diets high in whole cereals, beans, and vegetable oils; they are common only in those who live on diets rich in animal fats but poor in animal viscera, and especially in those who eat much milk fat and egg yolk.[9,10] Such vascular lesions represent metabolic and nutritional disorders, not aging changes. Men in their 20's can have severe atherosclerosis of the coronaries, with no evidence of vascular aging, and thus they may die in the first flush of manhood.[11] No matter how young, a man is quite as vulnerable as his arteries.

While the normal aging or involutional processes in arteries play no significant role in the disorders of advancing years, aging of the heart muscle seems to be an important factor in causing congestive heart failure in middle age and later. This change is not associated with a specific histologic alteration in the muscle and therefore is not fully appreciated. Consequently, there have been various explanations of heart failure with advancing age. All were based on the tacit assumption that age itself had no appreciable

effect on myocardial function. This assumption must be fully considered.

There is no lack of gross and microscopic change in the aging myocardium. Muscle cells atrophy, disappear, and are replaced by adipose tissue or delicate fibrous strands. This is most marked in the auricles and the right ventricle, and in obese oldsters dying without heart failure. Old hearts also show tortuous dilated epicardial vessels and sclerosis of the annulus fibrosis and tips of papillary muscles, but these are seen commonly when there has been no functional evidence of heart trouble. Pigment granules accumulate near the nuclei of the muscle cells, and may give a chocolate color to the myocardium. Such pigment is most obvious and occupies the greatest proportion of the cellular content in atrophic hearts of very old persons who never had a sign of cardiac failure. Therefore, it is not likely that the relatively small amount of pigment found in hypertrophied old hearts has anything to do with their dilatation and failure. It was the lack of correlation of the visible effects of aging with predisposition to failure which led to the search for extraneous causes for the loss of myocardial efficiency with age. But since avitaminosis and some endocrine disorders cause failure of the heart with minimal histologic change, involution may act in an analogous fashion. There is no histologic change in the eye in presbyopia or in the hair follicles with white hair, so that functional aging of the heart need not involve anatomic lesions.

In mammals the weight and the capacity of the ventricles increase when the volume flow of blood rises, but the weight of the ventricle increases with no change in capacity when the arterial pressure goes up gradually because of an increase in resistance in the pulmonic or systemic circuit.[12] When the load is removed, the ventricle atrophies to its previous size. When there is an abrupt increase in cardiac work, hypertrophy is preceded by the dilatation necessary to permit increased ventricular effort (Starling's Law).

In many old people the heart atrophies. Presumably the normal decrease in basal metabolism and in physical activity reduces the mechanical load, and the efficiency of the muscle is so high that a small ventricle is adequate to meet these diminished burdens. When an aging person has hypertension or a valve lesion, atrophy does not occur, but, on the contrary, there is significant hypertrophy of the appropriate type and location. Eventually such hearts often fail, but on the other hand some people die at advanced ages with no evidence of myocardial failure and with only moderate cardiac hypertrophy in spite of long-standing hypertension or valve lesions dating to their youth. Such cases prove that hearts may continue to be efficient in spite of age and serious overloading. Had these people not had such cardiac handicaps they too would undoubtedly have had marked cardiac atrophy.

If the efficiency of the muscle is impaired, as it is by thiamine deficiency, dilatation and hypertrophy also occur,[13] for the heart responds to loss of efficiency in the same way that it does to an increase in mechanical load. Occasionally middle-aged people die with huge dilated hearts with no evidence that hypertension, valvular lesions, metabolic disorder, avitaminosis, or any known factor has contributed to heart failure.[14] Perhaps some of these cases represent precocious myocardial involution, analogous with the involution of the pigment production that produces white-haired men before 30, or the involutions of the nervous system (Pick's and Alzheimer's diseases) which lead to amentia in the 40's or 50's.

At the extremes of clinical experience are those whose hearts dilate and fail for no other reason than myocardial aging and involution, and those whose hearts, in spite of decades of severe embarrassment, remain efficient into extreme old age. Between these extremes lies the mass of the population. They may have cardiac hypertrophy, dilatation, and failure at various ages depending upon the severity of any chronic cardiac embarrassment, valvular, hypertensive, endocrine, or nutritional; upon intercurrent febrile illnesses; and upon the rate and severity of myocardial loss of efficiency due to age. Whatever the nature of this aging change, it is obviously associated with a slow recovery from contraction and is brought to light by rapid heart action of whatever cause. Even in youth paroxysmal tachycardia lasting for several days may lead to cardiac dilatation and congestive failure because of progressive failure of the recovery mechanism when diastole is brief and the coronary flow reduced by fall in blood pressure. In older patients less marked acceleration, even without change in coronary flow, can cause heart failure. Occasionally such failure is apparent in a few hours; more often, only after days of accelerated rate.

Aging of the myocardium resembles aging of the accommodative mechanism of the eyes. Neither is apparent from gross or even histologic study, but only from functional tests. Presbyopia is revealed by failure to identify near-by objects or small type in the same way that myocardial aging is revealed by failure of the heart to sustain such stresses as high cardiac output, high arterial pressure, acute febrile illness, or tachycardia. When failure begins systole is lengthened and the increase in systole-cycle ratio may parallel

the degree of failure. But there is no way to estimate myocardial efficiency without overloading the heart and then determining when dilatation and prolongation of systole begin.

Failure due to acute myocarditis may develop even in young people with diseases such as rheumatic fever, typhus, periarteritis, and trichinosis, or with progressive myocardial damage due to glycogen deposition, amyloidosis, sarcoidosis, or repeated and extensive infarction. Heart failure, even in youth, also occurs when valve leaflets are destroyed, when pulmonary arterial pressure rises to levels four or five times normal, or when uremia or avitaminosis affects the myocardium. It is a remarkable paradox that elevated arterial pressure or scarred valves which caused no difficulty even with a vigorous life at the age of 20 should be blamed for cardiac failure a few decades later, when, due to falling basal metabolism and decrease in physical activity, the physical work of the heart is much less. In the past such cases of heart failure have usually been accounted for by assuming a decrease in coronary blood flow, and the failure was ascribed to "arteriosclerotic heart disease."

It is now realized that diffuse arteriolar disease is extremely rare in the heart and voluntary muscles, and that arteriosclerosis of the heart is always synonymous with atheromatosis of the epicardial parts of the coronary arteries—that is, with coronary arteriosclerosis as this term is used in relation to angina pectoris and myocardial infarction. While congestive failure may occur as a sequel to these disorders, the relationship is not close. Particularly in younger men, heart failure due to coronary disease is rare. Of eighty soldiers, 20 to 36 years old, who died of coronary occlusion, not one had congestive failure of any significant duration.[11] Even in older patients, an initial myocardial infarct is followed by heart failure in less than one of ten survivors, and follows only after an interval free of symptoms, for months or years in many cases. There is no basis for diagnosing arteriosclerosis as a cause of heart failure when there has been no coronary narrowing or myocardial infarction. It would be just as reasonable to call cases of unexplained heart failure "thyrocardiacs" in spite of the absence of any evidence of Graves' disease. In hyperthyroidism heart failure is rare even in severe cases in adolescence or the early 20's, but it is common in senescence with relatively mild hyperthyroid states, sometimes not of long duration. The fact is that neither coronary disease nor Graves' disease is likely to cause heart failure, unless the myocardium has aged.

Nor is there direct proof that as hearts age and hypertrophy they "outgrow" their vascular beds. X-ray and perfusion studies prove that the large heart has a large vascular bed,[15] and that even in old hearts the vascular bed always grows and adapts itself to the need for blood after infarction or with hypertrophy. There is no evidence that myocardial ischemia is a cause of heart failure in the aging or aged, except when there is occlusion of the large coronary vessels in the epicardium. Angina pectoris is the symptom and fatty degeneration of the heart is the anatomic hallmark of myocardial ischemia. Both are absent in aging hearts that hypertrophy and fail, except in those patients with coronary occlusion or severe anemia. Hypertension, hyperthyroidism, valvular disease, or inadequate blood flow to the heart muscle must be recognized as merely aggravating factors, never inevitable causes of heart failure. The increasing frequency of failure with senescence is due not merely to the presence of one of these disorders, but to senescence of the myocardium.

If involution of the myocardium is accepted as the most probable basis for many instances of heart failure in senescence it can be postulated that such changes begin at various ages, and may, like gray hairs, be absent even at three score and ten. In many people these changes may begin, just as do presbyopia and gray hairs, in the 20's and 30's, and in most before 50. Only in this way can one explain why a febrile illness or hyperthyroidism so often causes auricular fibrillation and failure in people over 50, and so rarely in those under 30. All cardiologists have more or less consciously recognized the importance of age as a factor in heart failure, without stating how age affected the heart. This phenomenon might be more widely appreciated if there were a good Greek word—presbycardia—to indicate that age has altered the ability of the heart to meet its burdens even though there is no significant structural change.

In each adult with congestive failure one should decide how much of the difficulty is due to an abnormal mechanical burden, how much to myocardial inflammation, to endocrine or vitamin imbalance, or to coronary sclerosis, and how much to presbycardia. The mechanical load and the vitamin or endocrine disorders can readily be evaluated in most cases. By the response to rest, mercurial diuretics, and salt restriction one can estimate how much of the trouble was due to bodily activity and high salt intake. Finally, with digitalis one can determine how much of the myocardial defect is reversible. This drug, so valuable in many older cardiac patients, is useless in beri-beri hearts, and almost useless in tachycardia due to acute myocarditis or hyperthyroidism in young adults. The cardiac glucosides seem to be effective in failure induced by desoxycorticosterone[16] and even in mammalian hearts

isolated from the body.[17] They have no beneficial effect on coronary blood flow, so that their action on hypertrophied old hearts is not due to increasing coronary flow. In many cases of heart failure the effectiveness of digitalis, increasing with the age of the group under study, indicates that a partially reversible biochemical defect is the most important factor in the causation of their cardiac disability, for only a biochemical defect could be modified by chemical agents of the digitalis type.

Summary

Like presbyopia, presbycardia (myocardial senescence) is a functional change associated with minimal anatomic alteration, which may begin soon after maturity and may lead to loss of adaptation of the aging tissue to its more exacting burdens. This seems to underlie many cases of heart failure in adults. Like presbyopia, presbycardia is a disorder for which medicine can provide a fairly effective countermeasure —in this case the digitalis glucosides.

Simple involution of arteries, as contrasted with atherosclerosis, is unimportant as a cause of cardiac disability in senescence, and causes few serious functional changes in the brain and other vital organs.

Deterioration of the central nervous system of the aging person is usually due to trophic loss of neurones, not to cerebral arteriosclerosis. Many cases of benign arterial hypertension seem related to such a trophic change in the central nervous system. Increased vasomotor irritability[18] may then be likened to senile intention tremor, Parkinsonism, and other involutional disorders of specific neurone groups.

All involutional changes are likely to manifest themselves, at least in larval or transient forms, much sooner after maturity than is generally believed compatible with the term "senescent." These may be brought to light only because of extrinsic factors which impose unusual burdens on the affected tissues, or, like white hair, they may occur soon after maturity and with no evidence of extrinsic causation.

The presence of senile changes in one system should never be taken as evidence of general change. Men who become bald or white-haired before 30 may retain youthful nervous function until late in life, and those with visibly tortuous temporal arteries at 30 may have faultless cardiac and vasomotor function at 90.

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TEACH THEM THIS ART

Hospitals are built and maintained primarily for the sick, but one of the other cardinal functions of the hospital is the training of interns and residents. This type of traditional cooperative education which is the greatest source of practical training and development of a young physician has been in the past the basis of many fine contacts between staff men, interns, and residents.

The medical schools are still doing a splendid job in spite of a decrease in personnel and the men who are being graduated now are just as capable and anxious to continue their academic interests as any of their predecessors. Their medical training has been cut to three years but they now go to school twelve months of the year. The only actual change has been to shorten rotating internship to 9 months.

With the present shortage of interns and with the hospitals filled with patients, there may be a tendency to forget that these young men are still looking for inspiration, for guidance, for a word of encouragement.

It is possible to make or break a spirit during these few short months in which we have agreed to impart to them what we have to offer in the art and science of medicine.

There is hardly time these days for an intern to do anything but take histories, do physicals, give intravenouses, and keep up his correspondence with the Surgeon General, but a little more effective interest in his immediate medical future by all of us is indicated.—*J. J. L., in Detroit Medical News, Jan. 22, 1945*

VESICOVAGINAL FISTULA AND ITS SURGICAL MANAGEMENT

VIRGIL S COUNSELLER, M D , Rochester, Minnesota

(From the Division of Surgery, Mayo Clinic)

VESICOVAGINAL fistula is a surgical entity that has developed as a complication subsequent to surgical procedures on the pelvic structures, difficult and complicated deliveries, radiation therapy for cancer of the cervix, or accidental trauma The greatest number of these fistulas which we have encountered in recent years fall in the first group, but there have been some from each class Generally speaking, the surgical problems involved in the treatment of vesicovaginal fistula require considerable thought urologic investigation, and a working knowledge of the various surgical procedures that are known and have proved to give the best results for different types of fistulas There is not just one operation or one method of approach that is applicable to all fistulas and for this reason vesicovaginal fistula seems to me to be an excellent subject for mutual discussion

I do not believe that in a meeting of this type there would be any value in presenting a review of a definite number of cases and showing the statistical data pertaining thereto However, I do desire to discuss certain phases of this subject which have improved my results and reduced my failures These apply both to the clinical and to the surgical management

Clinical Investigation

The diagnosis of urinary fistula is usually evident from the leakage, excoriation of the labia, inflammation of the vagina, and the odor, but to locate a small fistula may be extremely difficult Accurate information as to how the fistula occurred in the first place is most important For example, fistulas following total or supracervical hysterectomy are usually in the midline of the bladder, those subsequent to vaginal hysterectomy are usually in or near the ureteral meatus, and those following the excision of a urethral diverticulum, which, although not strictly vesicovaginal, should be included in this discussion, are located just in front of the internal sphincter and often seriously involve that structure The question has always been of interest to me why a urethrovaginal fistula located in the proximal portion of the urethra but which does not involve the internal sphincter should cause serious urinary incontinence, especially if the sphincter is the only mechanism of urinary continence, as many seem to think The answer to this question should explain satisfactorily why some operations for incontinence, which are applied to the incompetent sphincter, do not cure more patients than they do

Those fistulas that are not seen readily by means of cystoscopic examination are usually demonstrated, as you know, by filling the bladder with a colored solution and noting the point of discoloration in the vagina However, this method of demonstration may be faulty and very inaccurate With the patient in the examining position and with the cystoscope in place, a fistula near the sphincter or urethra will often not leak under these conditions In this situation a weighted speculum should be placed on the perineum and the entire vagina manipulated with long finger forceps to stretch or enlarge such a fistula

I recently had this experience again with one opening near the sphincter and, in addition, five other openings in the distal third of the urethra

A very careful cystoscopic examination is an essential prerequisite to a successful repair of the fistula One should observe the fistulous opening through the cystoscope, since its site is usually demarcated by a process that has the appearance of a diverticulum or a depression plus some granulations This appearance is caused by the vesical mucosa growing downward and uniting with the vaginal mucosa It is of considerable assistance to the surgeon if these fistulas are threaded at this time with black silk for identification and traction The fistula must also be located with respect to the sphincter, trigone, base, and either ureteral meatus, as the extent of involvement of the sphincter or ureteral meatus may alter the choice of operation considerably The character of the entire vesical mucosa with respect to deformity and infection should be observed A postoperative deformity of the bladder may conceal a second fistulous opening which might be overlooked easily and result in serious consequences

The factor of infection of the urinary tract and its relationship to recurrences of the fistula also has not been sufficiently stressed Fortunately, however, severe cystitis is not frequent, but when encrusted or interstitial cystitis is associated with the lesion it should receive priority of attention If the fistula is repaired in the presence of a badly inflamed mucosa, a recurrence of the fistula is almost a certainty, since repair of a

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wound in this region is the same as in any other location. The infection penetrates through from the vesical side of the wound and not from the vaginal side, since the vaginal mucosa from its very nature can withstand a definite amount of infection without harm. The question of infection in the upper part of the urinary tract is equally important. It is not at all uncommon to find, in a case of vesicovaginal fistula which has occurred subsequent to a surgical procedure on the pelvic organs, that a ureter may have been injured and there follows associated infected hydronephrosis. A discharge of pus into the bladder from pyonephrosis following the repair of a fistula can be, and usually is, disastrous. A routine excretory urogram or catheterization of the ureters and pyelograms should always be a routine procedure before repair of the fistula is undertaken.

In the diagnosis of fistula following the use of radium for carcinoma of the uterine cervix, very careful search must be made to determine the presence or absence of remaining malignant tissue, for, if such tissue is present, repair of the fistula is hardly justified in view of the life expectancy.

Factors Influencing the Choice of Treatment

Spontaneous closure of some small fistulas, such as those that occur following delivery, is fairly common. It has been stated that closure follows conservative treatment in such instances and that the cause of the fistula is probably a combination of previous pelvic or urinary disease and trauma in the course of delivery, rather than delivery alone. My experience with such fistulas has been very limited. However, I have observed that quite similar results occurred following conservative treatment of postoperative fistulas, especially those associated with drainage of pelvic abscesses, in which the wall of the bladder becomes a portion of the wall of the abscess. The vesical wall may be injured at the time that drainage is instituted or it may be necrotic and slough through in the course of convalescence. My colleagues and I consider that a sound measure in such cases is to insert a retaining catheter to empty the bladder first, and to leave it in place for five to seven days, until this danger has passed.

It is true also that small fistulas which occur high in the dome of the bladder following other surgical procedures have been observed to close spontaneously if the bladder is kept continuously empty by a retaining catheter for a few days. Also, I should like to stress that if such fistulas do not close early it will be useless to continue conservative management. The cauterization of small fistulous tracts has never appealed to me very much as a good procedure. Nevertheless, I resort to it once in a while without much faith and on rare occasions I am surprised to see a successful closure from the cicatrix. Cauterization should be limited to the smallest fistula of the recurring type.

Time is a very important factor in the management of vesicovaginal fistulas. I have often said that to open the bladder accidentally during vaginal hysterectomy or vaginal plastic repair is not a serious accident provided immediate surgical repair is done. However, if the bladder is empty and the opening is not recognized, a fistula is sure to follow. Vesical tissue will heal just as promptly as any other fresh tissue but accurate approximation is required just as it is required in a section of the intestinal tract.

Immediate repair of postoperative fistulas is not advisable, since if the fistula is at once evident the patient is rarely in physical condition for further surgical procedures. Most fistulas make their appearance a few days subsequent to operation as a direct result of necrosis. Those that follow hysterectomy usually are caused by a suture passing through vesical mucosa and necrose through in from five to eight days. Some of them following delivery are a direct result of pressure necrosis and loss of blood supply. Obviously, tissues in such a state cannot be repaired with any assurance of success. It is, therefore, advisable to postpone surgical repair for six weeks to three months, in order that all edema and other evidences of inflammation may subside completely. Failure to observe this one rule is one of the greatest causes of recurrence of the fistula.

When multiple operations have been done in an attempt to close the fistula, sufficient time should elapse to permit regeneration of blood supply and the softening of scar tissue. This often is a period of months. Therefore, if recurrence follows what seems to be an excellent and satisfactory closure, it is best not to touch the fistula again for several weeks. Also, it is, I believe, a safe dictum that the percentage of successful closures decreases with each operation, so that the surgeon who is fortunate enough to have the first chance at closure will have the best advantage. In competent hands successful closure in primary cases averages 80 to 90 per cent.

Unfortunately, in a small percentage of cases the scar tissue and lack of adequate blood supply are so bad that further repair is impossible. In some cases the destruction of the vesical neck and urethra from trauma or radiation is so extensive that repair is inadvisable. When the bladder is incapable of retaining urine again, ureterosigmoid transplantation is the procedure of choice

if the rectal sphincter is competent Some congenital anomalies present this situation at the outset Two years ago I saw a woman of 20 years of age who had exstrophy of the bladder, partial prolapse of the uterus, and no anus, the rectum entering the vagina My first procedure was to construct a rectum and anus somewhat posterior to the normal location After one year, when this organ was functioning adequately for gas and feces and the patient could retain an enema for two hours, I transplanted the ureters to the sigmoid colon A good result was obtained I now am trying to devise some procedure to retain the uterus in its normal position, since her menstrual cycle and female organs are entirely normal

The Surgical Approach

I believe it to be most unwise for one to advocate the view that there is only one approach to any surgical lesion We know that vesicovaginal fistulas can be repaired by the vaginal, the transvesical, or the transperitoneal route There are advantages and disadvantages inherent in each method One should choose the route which gives the best functional results as well as a low mortality rate

The vaginal approach appeals to me for very definite reasons First of all, a vesicovaginal fistula opens into the vagina and one does not have to disturb any other organ to get at it The risk involved is practically nil The surgical procedure is simplified There is only one small vaginal incision to heal and this usually heals rapidly if it is approximated accurately Obstetricians are well aware of this fact

The position of the patient on the operating table is the cue to the accessibility of the fistula The Kraske position has many advantages In this position the patient is placed on her abdomen with the buttocks raised on a kidney elevator A Sims speculum is inserted in the vagina and held firmly against the perineum, a maneuver which raises the posterior vaginal wall and exposes the entire vagina and the anterior vaginal wall

The surgeon can then dissect directly down on the fistulous tract rather than through a dependent cavity as is necessary in the transvesical approach The ureters can be catheterized with ease if it is advisable to do so when a laceration has extended laterally to one of the ureteral orifices or if the single fistula adjoins or involves the meatus or intramural portion of the ureter The ramifications of the laceration can be identified more easily than by other routes A fistula may present itself as a single opening but the vesical wall often is thinned out in a groove or furrow in the direction of the injury and, if this thinned portion of the vesical wall is not visualized excised, and repaired a fistula frequently will recur in the line of repair Since mobilization of the portion of the bladder containing the fistula and complete excision of the scar tissue are very essential parts of the operative procedure there is all the more reason why the vaginal approach should offer the simplest and easiest way both for the patient and for the surgeon as well as offering better chances of cure and considerably less disability One must possess complete familiarity with pelvic anatomy, especially subvesical anatomy, if one elects the vaginal approach

It may be argued that a fistula situated high in the vagina, like that encountered following total abdominal hysterectomy, is inaccessible and fixed The opposite is usually the situation, because, if a fistula follows such a procedure, then the vaginal vault is often very inadequately supported as a result of the same technical factor which produces the fistula If the vaginal vault is fixed or immobile, I should advise opening the cul-de-sac, a very simple procedure, in order to note the proximity of the sigmoid colon In such cases I should also advise placing the index finger ventrad to the bladder and actually pulling the bladder into the vagina thereby rendering it quite accessible for any surgical procedure I wish to stress the advantages of this maneuver

Once in a while a rectovaginal fistula is situated just opposite a vesicovaginal fistula and may be of such size that feces will be deposited in the bladder Such an occurrence considerably complicates the problems involved The operation here must be well planned and foolproof The effect of a recurrence of the fistula on the mental attitude of the patient and of the surgeon is more than I care to experience as I grow older and, I hope, a little wiser Therefore, if a rectovaginal fistula is present and if the uterus has been removed, I believe that left inguinal colostomy is in order as a preliminary procedure Both vesical and vaginal infection will subside and the induration will disappear The fistula can then be approached as previously described with infinitely greater chance of success than if colostomy had not been performed

Fistulas that are located near the internal urethral sphincter or urethrovaginal fistulas require by virtue of their location, that the vaginal approach be used in their repair A type of urethrovaginal fistula that I have been especially interested in is the one which follows excision of a urethral diverticulum The orifice of this diverticulum usually is located just in front of the sphincter or within 1 5 cm of it, so that some incontinence accompanies this type of fistula The degree of incontinence depends a great deal on the

relationship of the fistula to the sphincter and, from an anatomic standpoint, on just how much the internal sphincter and the posterior third of the urethra are interrelated in controlling continence in any given case. This factor is not easy to determine, so that repair of the fistula must include not only the fistula but most of the urethra and the sphincter back to the midarea of the trigone. It might be inquired: Why does a fistula so often follow the excision of a seemingly innocent little urethral diverticulum? This question is answered, I believe, in one word: infection. A urethral diverticulum is symptomless until it incompletely empties itself and becomes a pocket of pus which constantly discharges into the urethra. To cleanse it of its infection is quite impossible and, therefore, the inner wall of the diverticulum becomes an intimate part of the wall of the urethra, from which it cannot be separated without injury. I should suggest that the diverticulum be excised completely except for that small area running under the urethra if it happens to be adherent, and that then the orifice of the diverticulum be closed with a few sutures and the entire urethra and sphincter repaired as previously stated. A more certain method of preventing a recurrence of the fistula is to excise the diverticulum and make no attempt to repair the defect in the urethra until all inflammation has subsided.

A fistula situated in or near the internal sphincter is always accompanied by sphincteral incontinence and the method of repair is exactly as previously described, but in addition, a little more emphasis is placed on approximation of the scarred sphincter.

I should like to mention a type of fistula in which the dorsal position is preferable to the Kraske position and, of course, this necessitates the vaginal approach. This type of fistula is one which follows delivery or plastic repair of cystocele and occurs with the uterus in its normal position. In the dorsal position the cervix can be used as a tractor and the fistula visualized, and the bladder can be separated more easily and accurately from the cervix than when the patient is in the Kraske position. If the cervix is lacerated also, or should the fistula be vesicocervical, a repair of the cervix is certainly more accurately performed when the patient is in the dorsal position than when she is in the Kraske position. In dealing with this type of fistula, one must look for transverse defects in the vesical wall and repair transversely. One is not interested in the cul-de-sac or vaginal vault.

I am sure that the transvesical approach is favored by many surgeons in preference to all other types. However, when this method is elected it must be predetermined that the repair will be entirely successful; otherwise, the patient will have not only a recurring vesicovaginal fistula but also considerable disability and perhaps a postoperative hernia, especially if the fistula was subsequent to abdominal hysterectomy. One type of fistula which should be handled adequately by the transvesical approach is one in which it becomes desirable to reimplant the ureter in the bladder and to repair the fistula simultaneously.

The transperitoneal approach is definitely indicated for some types of vesicovaginal fistula, although it entails a much higher risk than any other method. If there is pelvic cellulitis and if it is desirable to perform total abdominal hysterectomy and repair of sigmoidal fistula too, adequate protection against subsequent leakage of urine into the peritoneal cavity should be provided by means of gauze in the vagina in case of necrosis and recurrence, since patients do not do well with urine in the peritoneal cavity.

The method of surgical repair which seems to me to offer the most for a successful result has been referred to in previous communications[1] on this subject and will not be reviewed now.

There seems to be considerable disagreement regarding the type of suture material to be used. At one time I used silver wire and advocated its use, but I have discontinued its use because I have observed cases in which some of the segments finally appeared within the bladder. The patient sometimes presents them to one later and refers to her vesical distress and severe pain as the wire passed through the urethra. In some cases segments of silver wire have been removed through the cystoscope with immediate relief of vesical symptoms. As a result of such experiences, all the material that I use for repair of the vesical wall is absorbable material. The vaginal wall is approximated with interrupted cotton sutures. These sutures I do not remove until after six weeks. They sometimes come out by themselves but those remaining after the six weeks' period should be removed, since they become inflamed and are definitely painful.

Postoperative Care

The postoperative care as conducted by most of us is essentially the same. I would emphasize certain points. I believe that when the repair is completed sulfathiazole placed in the vaginal canal is useful. The vagina is packed lightly with plain or iodoform gauze to prevent any oozing of blood behind the vaginal wall. This gauze should be removed within fifty-six to seventy-two hours. A sponge or gauze pack

[1] Counseller, V. S.: J. Urol. 47: 711 (May) 1942.

remaining longer will tend to favor recurrence of the fistula The vagina should not be examined or inspected in any way while the patient is in the hospital nor should there be any treatment or cleansing douches I feel sure that one cannot improve healing by treatment and if there is leakage of urine again one cannot do or at least one should not do, anything about it at that time

Any examination by using even the smallest speculum invites disaster Even after three weeks I do no more than examine the suture line very carefully with one finger I would not think of putting in a speculum That is why the sutures are permitted to remain so long

The use of the Bradford frame is a distinct advance in the treatment of vesicovaginal fistula by virtue of the fact that the incision is not bathed constantly in urine and also that the patient can observe the urine dripping into the basin A plugged catheter can be a very serious complication and is likely to occur if the urine is infected

Discussion

Dr George Gray Ward, *New York City*—As Dr Counseller has stated the majority of cases of vesicovaginal fistula seen today are due to surgery or radiation therapy In the Woman's Hospital of New York in recent years cases are two and one-half times more frequent from these causes than from obstetric injury

Hysterectomy or radiation by those lacking operative skill and knowledge of gynecologic anatomy and technic are accountable for many fistulae in the vaginal vault These are usually small and difficult of access

I have found the Schuchardt incision, if properly made, a most valuable aid in obtaining accessibility in such cases, and I have stressed the importance of commencing the separation of the vagina and bladder in the lower vagina to establish the plane of cleavage where there is an absence of scar tissue The bladder can then be easily displaced downwards with a straight male sound passed through the urethra The technic of dissecting the pubocervical fascia from the vaginal mucosa and overlapping it gives additional security to the flap splitting operation

I have not encountered the difficulty Dr Counseller mentions with silver wire sutures If I use silver wire in the flap-splitting technic it is placed only in the vaginal flaps and is shotted

If the fistula is imbedded in scar tissue as the result of radiation or cauterization, it is important to dissect out this tissue, even if the fistula is enlarged thereby, as otherwise the lack of vascularity will be a cause of failure

The original Sims position is also very helpful in obtaining easy accessibility to the anterior vaginal wall for diagnosis and operation In searching for minute fistulae, remember to have the patient cough with the bladder distended with a colored fluid

In certain cases I have used the reversed Trendelenberg position and Boseman's posture (or Kraske) in closing large fistulae This posture allows a clear view of the operative field due to the distension of the vaginal walls and bladder, and bleeding is less troublesome as it runs into the bladder

When multiple attempts have resulted in failure with the flap-splitting technic, I have found the original Sims operation with silver wire sutures often successful

As Dr Counseller points out, some of the most difficult cases are those involving the internal vesical sphincter, or with complete or partial destruction of the urethra While the fistula can be closed and a new urethra can be constructed by employing the technic suggested by Farrar, control is absent because of the destruction of the muscle A self-retaining catheter should not be used in these cases A small, straight catheter tied in is less apt to prevent healing at the vesical neck It is often wise to secure drainage by a suprapubic cystotomy in urethral injuries

If the Kelly technic or the Kennedy technic is not successful, control may be obtained by the excellent operation devised by Aldridge in which strips of rectus fascia are brought down behind the symphysis and united around the urethra

Important points to remember before operating are that postpartum involution must be completed before attempting a repair, small fistulae sometimes close themselves if a retaining catheter is used promptly postpartum or postoperatively, and what is most important, as Dr Counseller states, infection of the entire urinary tract should be eliminated by appropriate medication or surgery Phosphatic deposits must be removed and their formation prevented by keeping the urine acid Also, after the operation it is important to keep the urine acid, as phosphatic calculi may ulcerate and reopen the fistula Sulfanilamide powder placed in the vagina is of definite value

Emmet carried on the pioneer work of Sims at the Woman's Hospital and had the most extensive experience with these cases of anyone of his time He reported some 270 cases with a cure rate of approximately 70 per cent In a recent series of mine I had a cure rate of 73 per cent

Probably the man who has had the greatest experience in our time is Dr N Mahfouz professor of gynecology in Cairo, Egypt, who is frequently quoted in the literature as Bey instead of Mahfouz The incidence of vesical fistula is very high in Egypt as a sequel of neglected labor In 1938 Mahfouz reported having operated upon over 400 cases with a cure rate of 95 per cent in his last 100 cases He uses spinal anesthesia, as it gives relaxation of the pelvic floor, he stresses the importance of inverting the edges of the denuded fistula, he uses catgut and silkworm gut, and warns against tying the sutures too tight, and he ties in a small straight catheter for drainage

In judging cure rates however, one must bear in mind that much depends on the type of case The postoperatively inaccessible fistulas in the vaginal vault, those that involve the urethrovesical junction

or destruction of the urethra, and those that follow radiation for carcinoma with formation of scar tissue are more difficult to cure than many large fistulas situated in the trigone of the bladder.

It should be remembered that each case is an individual problem and the type of technic must be selected or improvised to meet the conditions present.

"NATIONAL OPTICAL STORES"

This is but one of the names used by a chain of "optical stores" throughout the Middle West. In Indiana there are several such outfits in the larger communities. Sometime ago the *Journal* exposed this outfit, following a visit to their Indianapolis store, this in answer to a wire asking us to drop in for a conference relative to engaging our services in their Hammond store, which since has been closed.

From time to time we have commented on the fact that this outfit continues to solicit Indiana doctors, all well up in years, to take employment with them. Of late it would seem that they are having trouble in "manning" their establishments since an unusually large numbers of our members have received these bids, via post card.

One addressed to us, September 23, 1944, and signed by Anthony Sward, 1148 West Chicago Avenue, Chicago, indicated that we would have to leave town for this particular job. He said, "We can offer you a splendid remuneration. This is refraction work, *no experience necessary.*"

We at once answered the inquiry, asking for further information, although our previous Indianapolis interview had given us full information as to the racket. Under date of September 28, the letterhead being that of the National Optical Stores Company, Chicago, friend "Tony" wrote us quite a letter, which is given in full herewith:

"Dear Doctor Shanklin:

"Pursuant to your letter of September 25th.

"The proposition, as the card stated, is refraction work (refracting eyes). It is a permanent connection, and is very easy and interesting work. If you have not been doing this type of work recently, we are able to train you in a very short period of time.

"The minimum guarantee which we offer is sixty-five dollars ($65) per week. The branch offices that are available at the present time are South Bend, Muncie, Marion, and Evansville.

"This requires absolutely no selling in any shape or form on your part, and is really not in the nature of a proposition, but is a bona fide offer of a permanent connection with a company of many years' standing and reputation.

"Owing to the fact that we must have a doctor available, you will realize that we are doing the best we can to make arrangements as quickly as possible.

"If you have had no previous experience in refraction work please call me (collect) and I will make arrangements for you to train at one of our offices near you. While you are in training, we pay your expenses when you are away from home.

"Our bank reference is the National Security Bank of Chicago.

"We would esteem it a great favor if you wire or call me (collect) at the above address, as to your decision, immediately."

It will be noted that Tony suggests that training might be had in one of their stores. One such store is in a neighboring city, where the "opthalmologist" is a former member of our county medical society and who to our knowledge has had no previous training in this subject prior to his "enlistment" with this racket.

This thing has been going on for several years, right here in our own state. The reason that, as Tony says, "We must have a doctor available," is due to the Indiana Optometry Law, which put a stop to chain-store optometry in this state. However, by the clever subterfuge of employing a regularly licensed physician, they have been able, thus far, to evade the law. On the same date the card was mailed to us, September 23, it seems that Dr. A. B. Graham, now retired and formerly of Indianapolis, was sent a card, an exact duplicate, this being forwarded to him in El Paso, Texas. (It is evident that Tony is using an old directory, since Dr. Graham has not been listed at Indianapolis for some years.) Dr. Graham writes, "Why my name was drawn from the hat, as a possible gullible victim of this damnable racket, I do not know."

Folks, this is a racket, and a racket that can be scotched! How long shall we permit this outfit to evade the intent and purpose of the Medical Practice Act and the Optometry Law? Hundreds of the gullible answer the advertisement of these Indiana stores, pay their money in good faith, and what do they get? They get an "examination" by a doctor, a regularly licensed doctor; they are led to believe that these men are "eye doctors," which they are not. They are but doctors who have sold their medical birthright, probably because this racket offers more cash remuneration than they were able to make in regular practice.

We of Indiana have cleaned up some rather nasty messes about the state; we can clean this one up in short order if we but get to it. Further, it is entirely possible, under the existing medical laws to revoke the licenses of these medical offenders—a thing that should be done—NOW!—*J. Indiana M. A., Jan., 1945*

THE SURGICAL TREATMENT OF CHRONIC CONSTRICTIVE PERICARDITIS

GEORGE J HEUER, M D , and HAROLD J STEWART, M D , New York City

(From the Departments of Surgery and Medicine of the New York Hospital and Cornell University Medical College)

CHRONIC constrictive pericarditis is a disease characterized by a chronic fibrous thickening of the pericardium which is so contracted as to interfere with the normal diastolic filling of the heart The result of this interference with normal cardiac action are the signs and symptoms resembling heart failure Pick, in 1896, emphasized the common findings in this disease of involvement of the liver and ascites and, therefore, it is often called by his name

From a historic viewpoint, however, the condition was accurately described long before Pick's publication Galen, about A D 160, is said to have observed a scirrhous thickening of the pericardium in a cock and suggested that the same condition might occur in man and interfere with proper cardiac function Lower, however, in 1669, appears to have been the first to describe the disease in man He pointed out that in large pericardial effusions the mass of fluid "oppresses" the heart in that it compresses its walls and prevents them from dilating sufficiently to receive blood, that under these conditions the pulse becomes small and finally is suppressed, resulting in syncope and death He cites the history of a London housewife aged 30 years who over a period of years declined in health with dyspnea, precordial discomfort, weakness, and small intermittent pulse The only important postmortem finding was a thick, opaque, and even "callous" pericardium densely adherent to the heart In 1729, Lancisi added to the clinical picture of the disease by citing the case of a man aged 24 with small pulse, marked engorgement of the jugular veins, and swelling of the abdomen At autopsy a small heart surrounded by a thickened, adherent pericardium was found Morgagni, in 1761, reported 7 cases of the disease, in one of which at postmortem the heart was "so constricted and confined that it could not receive a proper quantity of blood to pass on" But this author also noted that adherent pericardium need not necessarily be associated with symptoms and signs, an observation which may have distracted the attention of the medical profession from the importance of this disease, for little mention is made of it for over one hundred years even by such well known clinicians as Corvisart, Laennec, and Skoda

During the first half of the nineteenth century two German physicians, Griesinger and Kussmaul, and two English physicians, Chevers and Wilks, made important observations upon the disease, but these, for some unknown reason, entirely escaped notice It remained for Pick, in 1896, to stimulate interest in a disease which for so many years had been singularly neglected He reported 3 cases and discussed in particular the differential diagnosis between constrictive pericarditis and primary cirrhosis of the liver The interest he aroused in this condition has continued to the present day

The idea that surgery might achieve results in a disease which has resisted the efforts of the physician is attributed to Weill, who in 1895 suggested that patients with it might be relieved by resection of the pericardium Délorme, an internist who seems to have had unusual surgical instincts and whose name is widely known in connection with the operation of decortication of the lung for chronic empyema, not only suggested but insisted between the years 1895 and 1898 that surgery be attempted in this disease His advice, however, was not immediately followed Henle, in 1907, first attempted the operation, and in 1913 Rehn and Sauerbruch performed resection of the pericardium for chronic constrictive pericarditis, the former successfully Schmieden followed their lead in 1918, and since that time interest in the diagnosis of the disease and knowledge regarding its surgical treatment gradually has become more general In this country, Churchill was the first to perform the operation, and he and White in Boston, Beck and his associates in Cleveland, and Burwell and Blalock in Nashville have shown particular interest in and made important contributions to our understanding of this disease

It is not our purpose to go deeply into the cause, pathology, clinical manifestations, and diagnosis of this disease But we are sure it frequently is overlooked and, therefore, some remarks regarding its salient features are, perhaps, warranted The cause of the thickened, contracted, adherent pericardium has been related to tuberculosis in 1 out of 18 proved cases in our experience, in 5 of 37 cases in White and Churchill's experience, and in 22 of 28 cases in Burwell and Blalock's experience Pneumonia, sepsis, a previous pericarditis with effusion, as in 5 of our

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cases, all have apparently been causative factors; yet in most of the proved cases the antecedent cause of the condition has not been determined. The pathologic process in the wall of the pericardium gives rise to a variety of lesions. The pericardium is always thickened; but the thickening may be variable in different parts, being slight in some areas, marked in others. The thickened pericardium may be made up wholly of fibrous tissue or deposits of calcium may occur, giving rise to plaques, sheets, or a complete bony shell. It may be slightly adherent to the heart or so densely adherent and fused that a cleavage plane between the heart and its covering cannot be demonstrated. The contraction of the thickened pericardium may implicate the entire heart or chiefly the right ventricle or the great vessels at the base. It is the compression of the heart by its shrunken envelope that gives rise to the clinical manifestations of the disease.

These clinical manifestations commonly are dyspnea, increase in the size of the abdomen due to enlargement of the liver and ascites, and edema of the feet and ankles. Either may be the symptoms of onset, although dyspnea and enlargement of the abdomen are the most frequent. Of the physical signs a nontender, nonpulsating enlargement of the liver with ascites and engorgement of the jugular veins are the most important. The venous pressure is increased. The heart shadow may be small, average in size, but most frequently slightly or moderately enlarged. The cardiac rhythm is usually normal (13 cases) but there may be auricular fibrillation (5 cases). Abnormal cardiac sounds, such as murmurs, are absent in the majority of cases but there may be a slight or moderate systolic murmur. The blood and pulse pressures are low or may come within normal limits. The paradoxic pulse was present in all our cases. Fluoroscopic examination of the heart may show a diminution in cardiac motion and fixation of the heart in the mediastinum; the x-ray film may demonstrate a heart encased in a calcified pericardium. Electrocardiographic studies usually show abnormal records. The QR-S complexes have shown a low voltage in 17 patients and either a low voltage or inversion or flattening of the T-waves of the coronary type. The electrical axis shifts only slightly with change in the patient's position; the axis deviation was present to the right in 6 of our patients, to the left in 2, and normal in 10.

In the series of 18 cases here reported enlargement of the liver occurred in all cases; ascites in 15, edema of the extremities in 11, and pleural effusion in 8. Dyspnea on exertion or at rest was present in 17 and cyanosis in 14. Distention of the peripheral veins and an increase in venous pressure was present in all our patients. With these findings it is apparent that the diagnosis of chronic constrictive pericarditis should be considered in patients with the signs of congestive heart failure, in the absence of the common causes of this condition.

Certain studies of the circulation carried out upon 9 patients with chronic constrictive pericarditis by one of us (Harold J. Stewart) have added to our knowledge of the pathologic physiology of the disease. It has been found, in brief, that there is an increase in the arteriovenous oxygen difference, an elevation of the venous pressure, and a prolongation of the circulation time; a diminution of the cardiac output per minute, a decrease in the stroke volume, and a lowered value for the cardiac index (cardiac output in liters per square meter of body surface per minute). In seven of the 9 cases studied, these measurements of the circulation have been repeated after the operation of pericardiectomy; and in the cases cured or improved, the functional capacity of the heart increased. We have found, therefore, that these tests constitute a valuable aid, not only in the diagnosis but in estimating the improvement following operation.

In the differential diagnosis the disease is most commonly confused with mitral stenosis, cirrhosis of the liver, polyserositis, and nutritional or other edemas. Tricuspid disease and mediastinal tumors may occasionally be wrongly diagnosed. A widespread chronic pulmonary fibrosis in a young individual not subjected to operation but examined at autopsy was confused with the condition in our experience. From our own observations and those of others, the leading clues to a correct diagnosis are the insidious onset of dropsy, particularly in young persons, the preponderant liver enlargement and ascites, the increased prominence of the jugular veins with increased venous pressure, the normal or relatively normal heart in the presence of a non-nephritic dropsy, the low pulse and blood pressures and paradoxic pulse, the x-ray evidence of poor or absent cardiac pulsation and pericardial calcification, and the electrocardiographic findings of low voltage QR-S complexes and T-waves.

This, in the briefest outline, is the disease the surgical treatment of which is under consideration. We shall not speak of Brauer's operation of cardiolysis, a procedure designed to relieve the heart of its excessive work in moving the thoracic wall with each systolic contraction. This operation has limited indications in the disease which we are discussing because the chief cause of the difficulty is not the attachment of the pericardium to sternum and ribs but the constriction of the heart itself by its rigid, adherent covering. The operation we shall consider is the decortication of the heart by resection of the pericardium. It is

designed to relieve the constriction of the heart so as to permit a normal diastolic filling with a resultant normal contraction and an increased cardiac output.

A review of the literature and our own experience shows that the possibilities in this type of surgical procedure are sufficiently great to warrant its application in selected cases. All of the 18 patients with chronic constrictive pericarditis here considered have been subjected to the operation of pericardiectomy. All the patients have recovered from the operation. Seven patients were cured in the sense that their symptoms and signs disappeared and they were able to lead normal active lives; 3 patients, more recently subjected to operation, have so far recovered as to appear to be cured; 4 patients were markedly improved, 1 moderately improved, and 4 patients were unimproved by operation, of whom 3 have since died.

From the literature we have assembled 256 patients subjected to operation, with a primary mortality of 29 per cent. Of the fatalities, 25 patients died upon the operating table and 49 died during the immediate postoperative period. To have lost at once over one fourth of the entire number of patients subjected to operation suggests that preoperative treatment leading to a proper selection of cases and knowledge of and great attention to all the details in the operative procedure have influenced profoundly the results of surgery; and it is with these matters that we shall chiefly concern ourselves.

Preoperative Treatment

The preoperative medical treatment we have used is similar to that in the treatment of heart failure due to other causes. The patients are kept in bed and given a low salt diet (2.0 Gm. daily) and a limited amount of fluids (1,200 cc.). A high protein diet has been given because it was indicated in 4 patients because of the low value of their serum proteins and because, in others, it seems desirable to maintain the level of the serum proteins in order to draw fluids into the blood stream and make them available for excretion. Of the drugs used to mobilize fluids, mercupurin has been found to be the most satisfactory. It usually is given in 2.0 cc. doses intravenously at three-day intervals. To some patients ammonium chloride, 3.0 Gm. per day, was given at the same time to enhance the diuretic effect. Theocalcin, 1.5 Gm. three times a day, urea (50 cc. of 50 per cent solution three times a day) and aminophylline 0.1 Gm. three times a day all were tried but with less effect. Abdominal and thoracic paracenteses were resorted to when fluid could not be removed by other measures. Patients were not subjected to operation until fluids accumulated in the tissues and body cavities had been removed or reduced to the greatest possible extent even though this required months of rest in bed.

Anesthesia

Of the 18 patients subjected to 19 operations, 7 were anesthetized by the simple open-drop ether method, 11 with drop ether administered through an intratracheal tube (Magill) and 1 with an ethylene-oxygen-ether mixture. All the anesthesias were smooth, satisfactory, and without cyanosis. In 14 cases the pulse was rapid, ranging between 100 and 160, in the majority being 130 or over; in 5 there was not an increase in pulse rate. In the 14, the pulse was usually not only rapid but irregular in rhythm. On the other hand, the respiration remained regular, adequate, and unaccompanied by cyanosis. While our experience is as yet too limited to compare different methods of anesthesia in the operation of pericardiectomy, it can be said that ether has been highly satisfactory. In no case did we have the slightest anxiety regarding this part of the procedure. While we did not use intratracheal anesthesia in 7 of our cases and our patients failed to suffer any ill effects from the accidental opening of the pleura, we are inclined to think that intratracheal anesthesia is desirable. Our experience would indicate that in spite of the greatest care the left pleura, in particular, is likely to be opened in exposing the pericardium for resection, and that the opening might be sufficiently large to cause respiratory embarrassment.

Approach to and Exposure of the Heart

A greater part of the ventral surface of the heart may be exposed by an approach upon the left side of the thorax; and, therefore, at the primary operation a skin muscle flap is reflected upon this side. The position and extent of the flap may be determined by the position of the heart with reference to the overlying costal cartilages and ribs as determined by the x-ray film. We have found it desirable to expose the heart from its base to its apex, and therefore it may be necessary to resect inclusively the second to fifth, the third to sixth, or the second to sixth costal cartilages and segments of the corresponding ribs. The skin-muscle flap is formed by incisions which overlie, respectively, the uppermost and lowermost costal cartilages to be resected and which are connected by a vertical incision corresponding with the midsternal line. The major pectoral muscle is freed from the sternum and ribs and reflected laterally with the skin flap. The costal cartilages and segments of the corresponding ribs are resected. Thus far we have done a subperichondrial and subperiosteal

resection and have preserved the intercostal muscles, which are divided at the left border of the sternum and together with the perichondrium and periosteum are reflected as an additional flap. The dissection is then carried down to the pericardium along the left sternal border and the fat and connective tissue overlying it are carefully freed and stripped laterally, carrying with them the reflection of the left pleura. It is during the course of this maneuver that the left pleura may be torn and, therefore, it should be carried out slowly and carefully. The pericardium is freed to the left lateral border of the heart from the apex to the base, in the course of which the phrenic nerve may be brought into view. Having exposed the left pericardium, a similar procedure is carried out over the right side of the heart and to its right border. In doing so the heart is depressed so as to create a space between it and the sternum sufficient to allow the subsequent resection of the pericardium. In 17 of the 18 cases subjected to pericardiectomy it was possible to resect the pericardium over the right side of the heart without resecting any portion of the sternum; in one case the resection of the left half of the sternum seemed necessary in order to obtain sufficient exposure.

In only one case, thus far, have we performed a second operation upon the right side in order to free a greater part of the right heart. This patient, markedly improved but not entirely well five years after his primary operation, was subjected to a second operation and his right ventricle and auricle were completely freed. He seems to be well, for all symptoms and signs present before the second operation have since disappeared and his elevated venous pressure and delayed circulation time have returned to normal.

Resection of the Pericardium

It has been our practice after fully exposing the pericardium to incise it over the left ventricle and devote such time as may be necessary in establishing the most satisfactory cleavage plane between it and the heart muscle. In some cases a satisfactory cleavage plane is at once evident and the mobilization of the pericardium may be proceeded with at once. Again, there may appear to be complete fusion between pericardium and myocardium, making the dissection of the pericardium a time-consuming matter. In some cases the pericardium is thickened and fibrous but not calcified; in other cases it is almost a complete bony shell; in still others it is a fibrous membrane containing areas or plaques of calcification of various sizes and distribution. Calcified areas may be present over the right ventricle but not over the left, may occur chiefly about the apex and diaphragmatic border of the heart, or may surround the great vessels at the base. They may be easily separated from the heart muscle or may extend into and involve the heart muscle. It is evident from these considerations that the resection of the pericardium may not be too difficult, or it may be extremely difficult and dangerous.

It has seemed best to us to dissect the pericardium off of the left ventricle first because there is less likelihood of tearing into the left than the right ventricle in starting the mobilization of the pericardium and less danger of overdilatation of the left than the right side of the heart. The mobilization is carried laterally so as to free the apex and left border of the heart, upward to the base of the heart, and downward to the diaphragm. A region where particular care is necessary is the interventricular groove containing the descending branch of the left coronary artery. It is here that adhesions between pericardium and myocardium may be particularly dense and it is possible, as in one case in our experience, that a part of the artery may be dissected out of its bed with the pericardium, the division of which might seriously interfere with the heart. Having safely crossed the interventricular groove, the mobilization is carried out over the right side of the heart; to the right, if possible, to the right auricular ventricular groove, upward to the base of the heart, and downward to the diaphragm. It has seemed easiest to us to resect the pericardium in fragments; but we have always carried the line of separation between pericardium and myocardium well ahead of the cut edge of the pericardium in order to maintain a flap which we could bring against and suture to the heart muscle if the latter were inadvertently torn. We have also at times abandoned the attempt to separate a plaque of calcification or a particularly adherent piece of pericardium from the heart, thinking it better to leave it as a patch on the muscle than to risk injury to the heart muscle in attempting to remove it.

How much of the pericardium it is necessary to remove in order to achieve satisfactory results is difficult to state. We have removed as completely as possible the pericardium over the left and right ventricle; but in only one recent case have we attempted to remove the adherent pericardium over the auricles. An effort has been made to free the apex; and if possible the dissection is carried well down on the diaphragmatic portion of the pericardium. Only one attempt has been made to go beyond the right auricular-ventricular groove and we have not attempted to free extensively the great vessels at the base.

Not only may the decortication of the heart be, of itself, a tedious and dangerous procedure, but it is made more so because of the necessity of operating upon an organ in constant motion, and

one very sensitive to external stimuli. In 13 of the 18 patients subjected to operation, the heart-beat, as counted at the wrist, varied between 100 and 160 and in all cases was over 130 during the greater period of the operation. In some cases there were periods of paroxysmal tachycardia; in others ventricular fibrillation (EKG), in still others such complete loss of rhythm that the cardiac action could be described only as complete arrhythmia. Periods of transient stoppage of the heart occurred not infrequently, and in the majority of cases the dilatation of the right ventricle and its herniation through the pericardial defect added to the difficulties of the procedure. The manipulations necessary in the mobilization and removal of the pericardium certainly play a role in the irregularity of cardiac action. All the circumstances tend to urge the surgeon to hurry and finish the operation, but I am convinced that it is a tendency to be resisted. It has seemed to us wise to pause periodically in the course of the operation in order to allow the heart to regain a more normal rhythm and function.

That great care in the operative procedure is of importance in the success of the surgical treatment of chronic constrictive pericarditis is evident from a survey of the literature. As previously noted, of the 256 cases which we have assembled, 74, or 29 per cent of the entire number, died upon the operating table or during the postoperative period. A study of such data regarding the causes of death as are available shows that injury to the heart during operation, wound or other complications, and acute cardiac failure accounted for a high percentage of the deaths. There appears to be little doubt that care in avoiding injury to the heart, gentle manipulation of the heart, and meticulous attention to detail in operative technic are important factorsin lowering the mortality.

Closure

In the 18 patients whom we have subjected to operation, bleeding has been controlled as perfectly as possible and closure of the large wound has been with silk and without drainage. In 17 cases healing of the wound has been *per primam;* in one case a hematoma developed in the lower part of the wound, followed by a localized superficial infection which did not jeopardize the wound as a whole. In this case there also occurred a moderate-sized left hemothorax—complications resulting from imperfect hemostasis. In the closure of the wound we have retained all the layers reflected, first suturing the intercostal muscle and posterior perichondrium at the sternal border, then the major pectoral muscle and finally the subcutaneous layer and skin. Schmiden not only resects completely the bony thoracic wall but excises the major pectoral muscle, using only the skin and subcutaneous tissues to cover the heart. Churchill resects the bony thoracic wall but retains the pectoral muscle. Both surgeons think a mobile thoracic wall over the decorticated heart is desirable. Our experience thus far in cases followed over eight years indicates that the reformation of a rigid thoracic wall is not incompatible with satisfactory results.

Postoperative Treatment

Following operation 13 of the 18 patients had a surprisingly smooth and satisfactory postoperative course and their convalescence was practically uninterrupted. In 6 the immediate postoperative course was complicated by pulmonary or intrathoracic complications such as pneumonia, pneumothorax, and serosanguineous effusions. These 6 patients were ill after operation but at no time dangerously ill. In 4 of the 6 patients one or more aspirations of the chest were performed for pneumothorax or pleural effusion. The oxygen tent was used postoperatively following 10 of the 19 operations either because of a mild cyanosis or because the pleura had been opened during operation. At some period during convalescence some accumulation of fluid in the chest, either a simple or a serosanguineous effusion, was noted in 14 instances, for which aspiration was performed in 6 cases. Some degree of fever occurred after 17 of the 19 operations. Because of signs suggesting parenchymal involvement of the lung, the sulfa drugs were used in 3 patients and penicillin in 1. Fluids were given by clysis after operation in 14 patients, not given in 4. In one patient only a small blood transfusion of 500 cc. was given.

We have avoided intravenous fluids because of the fear of embarrassing the newly released heart by too rapidly increasing the blood volume. In general the diet and salt and fluid intake prescribed before operation were continued for a time after operation. Diuretics were used after operation in 14 patients and not required in 5. The position in bed was according to the comfort of the patient. A slight elevation of the patient seemed the most comfortable.

Improvement in the signs and symptoms of the disease has, in our experience, varied considerably. In 7 patients improvement was evident at once or before the expiration of a month; improvement in 1 did not become pronounced until after the lapse of two or three months, in 4 not until after six to ten months and in 1 not until after one year. In 2 improvement was gradual, in 4 improvement failed to occur. We have learned not to be discouraged if improvement after operation is not evident at once and rapid.

Results to Date

As previously noted, 18 patients have been subjected to 19 operations without a postoperative fatality. Of these:

(*a*). Seven patients are classified by us as cured over periods varying from one and a half to eight and a half years, of whom 6 have been followed more than three years and 3 more than seven years. One of these patients, after being completely cured for three and a half years, died from an unrelated acute generalized peritonitis.

(*b*). Three patients more recently operated upon have shown such improvement in their symptoms and signs as to warrant the expectation of a cure. Since they have been followed less than one year, they have not been classified as cured.

(*c*). Four patients are markedly improved over periods of from three to six and one half years. One of these patients died six and one half years after operation from pneumonia.

(*d*). One patient is moderately improved and is living six years after operation.

(*e*). Four patients were not improved by the operation. Of these 1 is living seven years after operation and 3 have died. One patient died one year after operation from recurrent pulmonary infarction, and 2 died eleven months and seven months, respectively, after operation from a progression of the disease. In the last two it became fairly evident on their return visits that the operation had failed in its purpose. To have cured or markedly improved 14 of 18 patients subjected to operation (77 per cent) is evidence that surgery has contributed importantly to the therapeutics of a disease which commonly causes death.

THE EVOLUTION OF THE ASEPTIC PRINCIPLE IN SURGERY

Ideas seldom spring full-fledged from the mind of man. What he does, what he thinks, what he is depend upon a multiplicity of factors over which he has no control. For example, minds as great as William Harvey's were produced in the fourth century B.C., but the circulation of the blood was not discovered until the seventeenth century A.D. The second century conceived minds which surpassed even that of the great Vesalius; yet human anatomy was not a fact until the sixteenth century. Progress is seldom constant. A chart of medical progress would resemble nothing so much as an economic graph with its valleys of depression and peaks of prosperity. A great discovery waits upon propitious social, technical, and cultural factors, upon the accumulation of pertinent but often isolated facts, and finally upon genius to forge the final link and "make" the discovery.

The principle of asepsis, more than any other one factor, has made possible the miracles of modern surgery. Yet few realize that the idea grew slowly through the centuries [illegible] boosts along the way—often [illegible] part of the contributor—from microscopists, physicists, bacteriologists, obstetricians, and laymen, as well as physicians and surgeons, before it culminated in the antiseptic principle of Lister which quickly evolved into our present concept of asepsis.

Wounds and their complications have concerned man from the earliest times. The ancient Greeks sutured wounds and used simple wine and astringent dressings, with apparently few wound infections. Galen also had good results in treating the wounds of the gladiators by suture and simple dressings. The later copyists of Galen, however, distorted his true meaning and extolled the value of suppuration —"laudable pus"—in wound healing. This abominable concept of wound therapy, which demanded that every wound discharge pus before healing, became so firmly entrenched in the middle ages that it was not completely dislodged until the nineteenth century.

One of the first breaches in the solid front of the advocates of "laudable pus" was made by Theodoric, Bishop of Cervia, one of the [illegible] all time. In 1266 he co[illegible], later printed in the surgical anthology at Venice in 1498, in which he advocated the simple, expectant, dry treatment of wounds: "It is not necessary as Roger and Roland have written, and as many of their disciples teach, and as all modern surgeons profess, that pus should be generated in all wounds. No error can be greater than this. Such a practice is indeed to hinder nature, to prolong the disease, and to prevent the conglutination and consolidation of the wound." Theodoric thus anticipated our modern aseptic treatment of wounds by more than six centuries. His teaching was given little credence, however, after Guy de Chauliac, the most eminent authority on surgery in the fourteenth and fifteenth centuries, repudiated his doctrine and again advocated "laudable pus."

Paracelsus, the physician, surgeon, alchemist, and mystic of the early sixteenth century, was another precursor of asepsis. He taught that nature and not officious meddling heals wounds. Although others, including Villanova in the fourteenth century and Fallopius, Wuertz, and Duchene in the sixteenth century, recognized the deleterious effect of air on wounds, no real progress was made toward a rational therapy of wounds until some light was thrown on the cause of infections. One of the early contributors to this field was the microscopist, Antonj van Leeuwenhoek.—*J. C. Trent in Thumbnail Sketches of Eminent Physicians, North Carolina M. J., Jan., 1945*

A GENERAL RESUME OF THE HEMATOLOGIC DISORDERS

ELLERY G ALLEN, M D , Syracuse, New York

A PROFESSIONAL colleague, discussing an unfortunate case of leukemia, recently inquired how I ever became interested in so morbid a phase of internal medicine as hematology. He was of the opinion that hematology is a more depressing field than cardiology and compared favorably with neurosurgery in the matter of mortality My original interest in this subject I told him, came because of the inspiration of certain teachers An interest in laboratory procedures developed early in my student days and the later association with capable and cultured clinicians, who kindly encouraged me in my interests, are the main reasons, I believe, why I have developed an enthusiasm for this subject In addition, I suggested that, although invariably fatal hematologic disorders are frequently seen, the majority of patients presenting abnormalities of the blood-forming organs can be greatly relieved or improved, if not completely restored to a state of normal health

I have selected some of the more practical aspects of the problems as we have seen them in dealing with patients in the hospital wards, dispensary, and in private practice These subjects will be discussed in the following sequence

A The erythrocytes
  1 Normal values
  2 Anemia
  3 Polycythemia
B The leukocytes
  1 Normal values
  2 Leukopenia
  3 Leukemia
C The hemorrhagic diseases

The Erythocytes

Normal Values —In postnatal life the erythrocytes originate from the endothelial lining of the bone marrow sinusoids Although it has been generally held that the average red blood count for a woman is 4,500,000 and 5,000,000 for a man it is known that these figures have been handed down to us as the result of three blood counts Vierdort performed in 1852 It can be stated that healthy women present erythrocyte counts varying between 3,800,000 and 5,500,000, with an average of approximately 4,800,000 and that the counts of men may vary between 4,600,000 and 6,500,000, with an average of approximately 5,400,000 The hemoglobin values for both men and women can safely be said to be 3 Gm per million

Thus a female patient may have a hemoglobin value as low as 11 4 Gm (76 per cent) and a man may exhibit a reading as high as 19 5 Gm (130 per cent), without either's having a definitely abnormal level For practical purposes, a hemoglobinometer reading in grams is preferable to one reading in per cent, since various hemoglobinometers have different standards as representing 100 per cent, and I am convinced that nothing has more confused the matter of color-index estimations than this fact

The hematocrit is a valuable instrument for estimating the volume of packed red cells, the volume index, and the mean corpuscular volume of the average individual erythrocyte, and should be employed in all cases of anemia Calculation of the color index gives us an impression as to the hemoglobin content of the average cell, whereas the volume-index estimations indicate their average size Thus anemias may be classified as hyperchromic, normochromic, and hypochromic, on the basis of the color-index studies, and macrocytic, normocytic, and microcytic, on the basis of volume-index calculations Of the two, the volume studies, as obtained by the red count and hematocrit reading, are probably preferable to the color index figures, since it is possible to more accurately read a hematocrit level than the color in the hemoglobinometer

Anemia —An individual is said to be anemic when the amount of circulating hemoglobin has been reduced below his normal level Although at one time we were prone to regard anemias as "primary" and "secondary," chiefly because it seemed necessary to separate pernicious anemia from other types, we now know that all anemias are "secondary" and that the terms should be abandoned From the laboratory standpoint, anemias are classified on the basis of color or volume-index studies Practical clinical classification, based on cause, demands that one consider whether the anemia is caused by increased blood loss, increased blood destruction, defective blood formation, or any combination of the three The anemias caused by blood loss are common and are likely to be of the hypochromic or microcytic type The hemolytic anemias, caused by increased blood destruction, may exhibit any type of color or volume index, whereas the anemias caused by decreased blood formation are likely to be hyperchromic and macrocytic, although such factors as inadequate dietary iron,

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infection, increased hemolysis, and blood loss may considerably alter this picture.

In any case of anemia, the physician should ask himself: Is the anemia caused by blood loss, is there evidence of increased blood destruction, and are any factors present that could depress the marrow function? Obviously, one must subject the patient to a thorough study in order to decide this matter and unless this be done in every case, one cannot have any rational basis for intelligent treatment. A thorough history and physical examination should include attention to the possibility of inadequate diet, infection, abnormal loss of blood, hemorrhagic phenomena, toxic drugs and chemicals, disease of the gastrointestinal tract, hepatic disorders, jaundice, enlarged lymph glands and spleen, a history of exposure to x-ray or radium, and diseases affecting the bone marrow itself. Complete laboratory studies, including x-rays of the gastrointestinal tract, gastric analysis, studies of the stools and urine for blood, examinations for evidence of increased hemolysis, and sternal marrow biopsy, may be necessary in the cases in which the cause is not obvious, and even when all this has been done, a rare case may defy causative diagnosis.

The successful treatment of anemia depends on our ability to remove the cause, and any antianemic therapy is merely treating a symptom unless this is possible. One must insist on the removal of agents or physical conditions known to depress the marrow function, increase hemolysis, or cause bleeding, if this be possible. Adequate diet, control of infections, and hemorrhage must receive close attention. The anemia of primary thrombopenic purpura and congenital hemolytic icterus are best treated by splenectomy. Liver extract is specific for pernicious anemia and aids greatly in the management of some of the anemias secondary to deficiency states, especially those in which hyperchromic blood is present. Iron is valuable in most of the hypochromic anemias, but I am not convinced that liver extract or the addition of copper is of distinct value in this variety. Transfusions of blood are usually not indicated in types of anemia known to respond to specific therapy, although it may be necessary occasionally to employ this valuable procedure when the hemoglobin level approximates 4.5 Gm. (30 per cent) to prevent circulatory collapse, to control hemorrhage, or to tide the anemic patient over until a definite diagnosis can be made.

Our experience with pernicious anemia has permitted us to draw several conclusions. In about ten years, at the University Hospital and the Syracuse Free Dispensary Hematology Clinic, my associates and I administered approximately ten thousand injections of liver extract intramuscularly. From our observations, we conclude that liver extract caused clinical remission in every uncomplicated case. The average case in relapse received twenty to thirty units of liver extract on the first day of treatment and no more for a week, if a satisfactory reticulocyte response followed. Subsequent dosage averaged ten units weekly until the hemoglobin and red-cell levels were normal. In occasional cases, the addition of iron was found to be of benefit when the red-cell level had reached approximately 3,500,000, especially if the color index had fallen below 1.0. Following remission, the patients received ten units once in two to four weeks. Occasionally a case required more frequent injections and a rare patient was controlled by one injection of ten units every six weeks. Those patients exhibiting objective neurologic signs have been treated with ten units once a week, irrespective of their normal blood levels, and no patient has failed to improve, at least symptomatically. No patient with objective neural signs has recovered completely, although a few have been noted to have gained improvement in vibratory sensation and reflexes. Two patients with partial loss of vision caused by optic neuritis have recovered almost completely. A rare patient with multiple peripheral neuritis was thought to recover, although it was felt that the addition of parenteral thiamine may have been of distinct aid in hastening recovery.

It is important to realize that patients with pernicious anemia may also have other physical defects requiring urgent attention. We have seen patients who also had the complication of vascular disease, infections, gastric malignancy, chronic nephritis with nitrogen retention, and myxedema. Thus, if one is not constantly aware of such possibilities, therapeutic efforts may prove unavailing.

The hemolytic anemias, caused by increased blood destruction, include those caused by toxic agents, such as sulfonamide drugs, lead, the inhalation of arseniuretted hydrogen, phenyl hydrazine, benzedrine, potassium chlorate, phosphorus, benzol and its derivatives, and snake venom. Hodgkin's disease and infections, such as malaria and severe sepsis, may be causative agents. The rare, acute hemolytic anemia of Lederer, usually associated with an infectious process, may respond satisfactorily to blood transfusions. The hemolytic anemia of Cooley, seen chiefly in children of Mediterranean stock, does not respond to any type of treatment, nor do satisfactory results follow therapy for sickle-cell anemia. Studies of erythroblastosis fetalis, shown to be caused by immunization of an Rh negative mother by an Rh positive fetus with the production of agglutinins, which causes hemolysis of the fetal blood cells, have added distinctly to our

knowledge of this occasional serious disorder. Hemolytic anemia of the newborn may be fatal, or may respond well to intramuscular injections of blood serum or frequent small transfusions.

Congenital hemolytic icterus is characterized by varying degrees of anemia, jaundice, and bouts of fever, and is diagnosed on the basis of family history, increased fragility of the erythrocytes, and the presence of spherical microcytes in the peripheral blood. Splenectomy is the treatment of choice, although we have seen at least 3 patients who appeared to improve temporarily following repeated intramuscular injections of liver extract.

Polycythemia.—Polycythemia vera is a rare disease, but constitutes a serious problem, from the point of both diagnosis and treatment. Many patients have been diagnosed as having and have been treated for polycythemia who did not have the disease. This unfortunate error has largely resulted from lack of appreciation that many normal people have red-cell and hemoglobin levels considerably above the average. I agree with Kracke that "red cells should number at least seven million before a diagnosis can be established with certainty." Naegli has recorded an unusual case in which the red count was 20,000,000, but, in my experience, I have seen no case with a red count exceeding 10,500,000. My own observations lead me to believe that venesection and preferably frequent removals of small amounts of blood is the treatment of choice, although most patients will be expected not to survive more than six to eight years after diagnosis has been established.

The Leukocytes

Normal Values.—Ordinarily we consider the leukocyte count to number between five and ten thousand. Rarely do healthy adults reveal figures below 5,000, but it can be definitely stated that not infrequently one finds white blood counts in the neighborhood of 12,000, in the absence of demonstrable disease, and this fact is of great importance to those considering possible surgery. It is my impression that the history, clinical signs, differential white count, and degree of "left shift" are of far more importance than the total count. By way of example, it is well known that severe infections may be associated with profound leukopenia and the so-called "leukemoid blood picture," sometimes confused with acute leukemia.

Leukopenia.—The most striking depression of the white blood count is seen in the condition termed "agranulocytosis." One of our fatal cases exhibited only 150 cells and no polymorphonuclears could be found in the stained smears. Women are more prone to the disease than men, it is generally agreed, and diagnosis is usually not difficult. The white blood counts are usually less than 1,500 and the polymorphonuclears below 10 per cent. The total number of lymphocytes is decreased and anemia and purpura are rarely found, this latter in contrast to the cases of leukopenic leukemia, occasionally misdiagnosed as agranulocytosis. If the total white blood count is repeatedly above 2,500, one can justifiably question the diagnosis of agranulocytosis.

As to the cause of agranulocytosis, it has been amply demonstrated that drugs containing the benzene ring, notably amidopyrine have been responsible in certain sensitive individuals. Since the sulfonamide drugs have been employed, numerous cases of this disorder have been reported, although it is remarkable, considering their widespread use, how infrequently serious bone-marrow depression occurs.

As to treatment, the main points are to discontinue drugs known to depress marrow function, remove foci of infection, if possible, and to administer pentose nucleotide and liver extract in full dosage, and, possibly, to use repeated transfusions. Recently, some reports have been published in which patients have been treated with sulfonamide drugs, but more experience with this method will necessarily have to be gained before it can be accepted as a safe procedure.

Leukemia.—Leukemia remains one of the most serious problems confronting the physician. Most patients with blood counts in excess of 50,000 are leukemic, although reports of patients with infectious mononucleosis and blood counts in the neighborhood of 50,000 have been published. Rarely a case of infection may present an unusually high leukocyte count, and we have seen an adult patient with a kidney abscess whose total white count was 70,000 and a child with extensive osteomyelitis of the skull who exhibited a count of 90,000 cells. It is important to realize that many patients with leukemia exhibit leukopenia, and our experience has shown that numerous cases of this disease occur in which the white count may be below 4,000, rarely below 3,000.

The cases in patients with greatly elevated white counts are not difficult to diagnose, when one bears in mind the usual splenomegaly, adenopathy, anemia, "blast cells," and quite occasional secondary thrombopenic purpura. The diagnosis of leukemia is occasionally extremely difficult, particularly when the total white count is low, when "blasts" are not found in the peripheral blood, when splenomegaly and adenopathy are not in evidence, and the anemia is of the hyperchromic type. Failure of liver therapy is sometimes followed by bone-marrow

biopsy, at which time the evidence of leukemia may frequently be demonstrated.

The treatment of leukemia is mainly symptomatic and is, on the whole, quite unsatisfactory. X-rays, radium, radioactive phosphorus, transfusions, and antianemic drugs may appear to be of temporary value in some of the chronic cases, but all treatment eventually fails and any treatment in the acute cases, except for the temporary effect of transfusions, has been, in my experience, of no definite benefit.

The Hemorrhagic Diseases

From a practical standpoint, the hemorrhagic diseases one encounters are principally hemophilia, thrombopenic purpura, nonthrombopenic purpura, hemorrhagic disease of the newborn, familial purpura (nonthrombopenic), and the severe bleeding occasionally seen in polycythemia. Laboratory studies of value differentiating these conditions are too well known to merit detailed discussion, although it may be emphasized that the bleeding time, as ordinarily performed, is notoriously unreliable. Tests for clotting time must be performed, using venous blood, otherwise the results are entirely unsatisfactory. Clot retraction time is an important test, for failure of the clot to retract is a characteristic finding in the thrombopenic purpuras. The tourniquet test should be performed by placing the blood pressure cuff at a pressure of about 90 mm. and noting the number of purpuric spots in a measured area after four minutes.

As to diagnosis of the hemorrhagic states, thrombopenic purpura, either idiopathic or secondary, is identified on the basis of lowered platelet count, increased bleeding time, normal or slightly prolonged clotting time, failure of the clot to retract, and a positive tourniquet test. The nonthrombopenic purpuras may or may not show a positive tourniquet test, although a considerable proportion give this evidence of increased capillary permeability. Hemorrhagic disease of the newborn and excessive bleeding associated with vitamin K deficiency are characterized by prolonged clotting and prothrombin time. Nonthrombopenic familial purpura, occurring in both sexes, and polycythemic bleeding are found to have a prolonged bleeding time; in the first instance, a probable inherited nervous mechanism prevents normal capillary contraction after puncture, and in the second case, failure of the capillaries to contract because of subintimal adventitial sclerosis is the likely explanation. The characteristic findings in hemophilia are a family history, the usual clinical features, and a prolonged clotting time.

The treatment of the hemorrhagic states is only partially satisfactory. The simple nonthrombopenic purpuras usually respond to treatment if the cause for the increased capillary permeability can be removed. Removal of infections, administration of vitamin C in appropriate cases, and elimination of allergens are but examples. Idiopathic thrombopenic purpura is best treated by transfusions of fresh whole blood and splenectomy. There is no certain satisfactory treatment of secondary thrombopenic purpura, since many cases are leukemic or the bone marrow is so badly damaged for one reason or another that transfusions offer only temporary benefit. Hemophilia can usually be temporarily controlled by the transfusion of fresh whole blood or the administration of plasma, either fresh or dried. The administration of plasma several days old has been found to be ineffective. The vitamin K deficiencies, characterized by delayed prothrombin and coagulation times, are usually corrected by the administration of vitamin K preparations, provided the liver is not badly damaged. The bleeding of polycythemia and nonthrombopenic familial purpura can only be arrested by local pressure, although transfusions are of aid in combating shock and anemia.

In conclusion, may I mention a few of the general impressions I have gained in observing some of the hematologic disorders? The diagnosis of all these conditions requires painstaking clinical study and detailed and repeated laboratory observations. Even with all the data at hand, it is occasionally impossible to make a correct diagnosis, and treatment, although often successful in certain ailments, is frequently disappointing in others. The problems of leukemia and bone-marrow depressions of unknown cause offer the greatest challenge to our investigators, but it can confidently be hoped that time and effort will give us a suitable answer in these obscure states, as has been the case in pernicious anemia, some of the purpuras, erythroblastosis fetalis, and in the bleeding now recognizable as that due to vitamin K deficiency.

922 State Tower Building
Syracuse, New York

EXAMINATIONS IN OTOLARYNGOLOGY

The American Board of Otolaryngology will conduct examinations at the Waldorf-Astoria, New York, June 5-8, and at the Palmer House, Chicago, October 3-6.

CONFERENCES ON THERAPY

Psychologic Aspects of the Treatment of Pain

From the Department of Pharmacology and Medicine, Cornell University Medical College and the New York Hospital, July 15, 1943

Dr H G Wolff Physicians have long known that people vary a great deal in their reactions and attitudes to painful experiences This has confused many and has led to a variety of investigations and interpretations Attempts have been made to classify people on the basis of whether they were more or less "sensitive" by eliciting pain with pressure on the styloid process More recently Hollander devised a little gadget consisting of a lemon-skin grater, under a blood pressure cuff The latter is inflated and when the subject complains of pain, a reading is made on the manometer It is claimed that the more "sensitive" persons complain at a lower pressure and the less "sensitive" at a higher pressure Wilder has made much of this test in the classification of patients and in the use of drugs

We felt that the issue was being confused and I shall now explain our reasons for thinking so It has been found that the pain threshold is uniform from individual to individual Tom, Dick, and Harry, all ages, all races, if they are alert and attentive exhibit the same pain threshold, i e, the intensity of stimulation at which pain is first felt under fixed circumstances is uniform But persons vary greatly in their reaction toward pain and this is what is being estimated by the various devices that I mentioned This has practical significance In a patient about 50 years of age discomfort over the precordium may become a very serious matter if he has heard about coronary occlusion among his friends It may, therefore, require a great deal of medicament to overcome that discomfort in him On the other hand, the same individual, if thirty years younger, might have the same degree of discomfort and require no medicament whatever and very little attention It is not the pain itself which causes a violent reaction but the implications of the pain That also holds for other varieties of painful experience

We all know that perception of pain can be dissociated from reaction to pain, and there are many common examples For instance, in the excitement of games one does not bother about one's injuries In sexual excitement or in religious excitement injury is likely to be ignored Among religious enthusiasts pain certainly does not cause the reaction that it does in one who is a passive observer or in one who has no such convictions that suffering is an asset A person giving himself pain for scientific purposes may also have a detached attitude An individual coming into the accident room in a drunken condition may be very badly banged up and show none of the effects of it until the next day when he is sore and bruised all over At the time of alcoholism he is indifferent, although he is aware of the injury A woman who is very eager to have children may be having as much pain in childbirth as one who does not want them, but the reactions of the two women may be very different A person with pain who has confidence in his doctor may have little reaction A patient with pain and no confidence in his doctor may have a severe reaction These are common experiences with which we are all familiar and which illustrate the difference between perception and reaction

Some drugs are especially useful in managing this reaction aspect of pain, and the most effective are the opiates and alcohol

An example of a simple biologic reaction to pain is sweating which can be readily measured by determining changes in skin conductivity By this means we can study the factors which influence reactions to a painful stimulus In subjects taking 30 cc of 95 per cent alcohol, the effect on the pain threshold is relatively uniform and predictable However, the effect on the reaction threshold, that is, the point at which a given stimulus causes a change in skin resistance, varies anywhere from 40 to 800 per cent elevation in different individuals and in the same individual on different days Morphine and alcohol have an enormous effect on the reaction threshold

There are many factors which influence threshold and have a bearing on the management of pain Distraction is one of the most important factors Reading aloud an engrossing adventure story to an interested group of persons can raise the pain threshold 10 or 15 per cent Autosuggestion raises the pain threshold more in some than in others In the test of repeating five to nine digits forward and backward the individual who is interested in and preoccupied with doing well has his pain threshold appreciably raised, while others not interested are less influenced

Hypnosis may have a large effect. A loud clanging bell may raise the pain threshold almost as much as aspirin.

There is another important situation in which distraction can raise the pain threshold: A physician's manner of entering the room, taking a history, and chatting with the patient may cause the individual to have less pain at the time. That is a common experience. The effect of suggestion has been studied in a series of experiments in this laboratory. A nonsuggestible person, with experience in sensory examinations and psychologic testing, was given 0.3 Gm. acetylsalicylic acid and the usual elevation of the pain threshold was observed. On subsequent days he was given placebos, once with no suggestion, and once with mild suggestion, being told it was an analgesic of some value. No elevation of the pain threshold occurred. Then he was given a placebo and told it was a very remarkable analgesic and that we expected striking things to happen. Again there was no increase in threshold. Now contrast that with the experiment in the second subject. This was a young woman, a kindly, interested, zealous, and helpful person in the laboratory. She was given 0.3 Gm. of acetylsalicylic acid and the usual elevation of the pain threshold occurred. On another day she was given a placebo and realizing how well she had done before, she reported an elevation of the pain threshold without any acetylsalicylic acid. Then she was humiliated by being told she had made an error and must be careful about reporting her observations. A few days later she was given 0.3 Gm. of acetylsalicylic acid with no effect. She was very cautious now. Suggestion, obviously, was operating throughout all this experiment. Two weeks later, after returning from vacation, she had regained confidence and approached the experiment in a more detached way. She was given 0.3 Gm. acetylsalicylic acid with good effect, and thereafter on subsequent days was given placebos with no effect. Thus she had learned something about herself and was no longer allowing suggestion to play too much part in her observations.

Such experiments with suggestion have many implications. Sterile hypos act very much in the same way. It is often stated by the house officer that the pain in a particular case was a pretense because the patient was helped by sterile hypos. Nothing could be more false. Pain may be very appreciably influenced by sterile hypos, since no procedure is more suggestive for the relief of pain.

In addition to distraction and suggestion, there is a third psychologic factor, namely, confidence, conviction, or belief, which is of importance in the management of pain. We have made an experiment illustrating the interplay between physician and patient. The patient was given a placebo, which, the doctor declared, had value, but the patient was not convinced. This had little effect on the pain threshold. On another day when the enthusiasm of the doctor gave her conviction that she had been given an agent of considerable analgesic force, a threshold-raising effect equal to that of aspirin was produced. In other words, when the patient has belief that the doctor's medication is useful, it will have more effect even though it is a placebo, than when there is no such confidence. The opposite would also be true. If the doctor felt that a pill, which was declared to be good by one doctor, was not good and said, "I don't believe in it but take it anyway," it is obvious that such a lack of conviction might easily work to overcome the effect of a reasonably good analgesic.

All this has a bearing also on experience with new drugs. Doctors are flooded by folders with descriptions of new agents which will do all sorts of things and they try them out with a belief that they will, and soon they are reporting a high percentage of improvements. You readily can see how wrong they may be under those circumstances.

However, confidence, conviction, and belief in the physician, combined with the physician's own enthusiasm, will have a great deal to do with the effectiveness of an agent in the management of pain. This is true both when the agent has no value and when it does have a value. It is only proper to conclude this by pointing out why "quacks" may be effective physicians in the management of pain. You see why people flock to religious sects promising to heal the sick and give relief from pain. They are often helped appreciably and they are thankful for that help. "Shrines" have been giving people help since the beginning of time.

A physician who is capable of giving the conviction that he knows what he is about, and that the patient is being well cared for, is contributing a great deal toward helping him. Under such circumstances the physician's reassurance may take the place of morphine or any other agent that is capable of modifying the reactions to pain. He may also modify the perception of pain through suggestion, distraction, and confidence.

Dr. Rennie, will you make some comments at this point?

DR. THOMAS A. C. RENNIE: I find this extremely interesting experimental corroboration of information known to many of us through our experience and observation on patients. I suppose no single situation in a student's life brings out what has been said more aptly than that of venipuncture and the varying reaction of individ-

ual patients to the amount of pain involved in taking a blood sample

In discussing the topic of pain, I think one important factor that might be included in your formulation would be the great cultural differences that exist Thus, in the primitive tribe pain is part of the initiation experience Here pain is obviously handled very differently from the manner of modern civilization The English put a premium on restraint in expressing emotion They are less likely to complain of pain than the more voluble Latin-type individual In psychiatry one encounters the hysteric characteristics more distinctly in the Jewish race than in some other races In treating such individuals the social background must be considered

You have discussed individual differences in the reaction to pain I would be interested in knowing to what extent family patterns modify individual response to pain In very early life a child can be trained to take pain well or trained to take it poorly, and the attitude of the parent to the very first experience with pain must contribute a great deal to the conditioning of the subsequent response to pain So, in early childhood development, family attitudes would be of extreme importance

There is another aspect of pain which I find interesting, and that is the duality between pain and pleasure Undoubtedly there are a lot of individuals who get a great deal of pleasure out of pain, and pain becomes a necessary kind of suffering in order to fulfill certain urges within themselves Quite recently I listened to a patient, who was under the influence of a depressant drug, tell me of the exquisite joy of having a child without anesthetic and she stated that any mother who had not gone through that experience will never know what motherhood means This became an ecstatic experience a transported physical sensation arising from the sheer pain of childbirth I saw an individual recently who said that she liked to go to the dentist because she loved the exquisite sensation of the drill There is that curious duality which exists between pleasure and pain

DR WOLFF And it is linked with the sex experience

DR RENNIE Yes I think the other aspect which should be emphasized is the role of the degree of anxiety and general insecurity which the person is experiencing Obviously, under such circumstances he is more aware of the pain experience and makes more of it Hence, the attitude which has been discussed by Dr Wolff is so very important

There is a final point which I would like to bring out Pain may have a curious value as a distracting element Thus, for example, I have seen a patient in protracted depression, who recovered completely from this state following the distraction caused by severe pain that lasted several days as the result of the fracture of a leg

Pain is a complicated subject, but much has been done to elucidate the psychology involved

DR WOLFF Do you want to add something, Dr Binger?

DR CARL A BINGER There are several things which occurred to me while Dr Wolff was speaking I think the source of the pain has a strong influence on the reaction to it Not long ago I saw a young Englishman who had been through the "blitz" and never went into a shelter He did not show the slightest fear He was somewhat undernourished and pale from inadequate diet When I pricked his finger for a blood count he nearly keeled over That was a particular kind of trauma which he could not tolerate though he was obviously a man of great courage

I think there are specific kinds of pain experiences which have a specific meaning to certain neurotic individuals Fear of the dentist may be outstanding in some people I just saw a young man who although he belonged in a society whose members go to the dentist for prophylactic treatment twice a year, had never been near a dentist because of fear

In veterinary medicine it was empirically discovered that the pain threshold may be raised by administering another strong stimulus simultaneously When a veterinarian wants to open an abscess he puts a twist on the horse's lip As he is about to incise the abscess, the twist is tightened and this distracts from the sensation of the incising

The observations which the psychologist, Prof Gardiner Murphy, is now making seem to me to have a bearing on this subject, although in an entirely different field He is interested in measuring what he calls autistic phenomena He is concerned with the mechanisms which influence and govern judgment One experiment is to put the subject in a dark room and show him a light The subject is then told that the light is moving upward, and he is asked to estimate how far it moves upward Or he may be told the light is moving in a circle and he is to estimate the radius of the circle Each particular individual who is exposed to this experimental situation will have a certain kind of quantitative answer It then turns out that the light is fixed in a bracket and actually is not moving at all, and yet because of some inner mechanism of our own we interpret this light as moving according to our own judgment This observation has a bearing on Dr Wolff's experiments

In order to test what kind of influences modify judgment, Professor Murphy has various devices

For example, he puts a man, innocent of the experimental procedure, in with a group of men who know about it, and invariably his judgment will gradually come to coincide with the opinion of the others. Another type of experiment involves giving the subject two objects to balance and he is asked to describe which one of the two is the heavier. When he gives the right answer he is handed a penny and if he gives the wrong answer the penny is taken away. After a while he will favor the side on which he is rewarded. So our judgments of perception, through some internal mechanism, are influenced by such factors as public opinion and reward or punishment.

DR. WOLFF: Dr. Gold, you certainly have had a lot of experience in assaying the effect of agents which are supposedly useful in the management of pain in patients with coronary artery disease. Have you anything to say about that?

DR. HARRY GOLD: I should like first to comment on your interesting allusion to the differences in the response to a pain in the chest on the part of a 20- and a 50-year-old man. The younger one makes light of it and carries on with little or no medication; the older man's reaction is more serious and requires abundant medication, because he is likely to be more concerned with the serious implications.

Failure to bear this in mind may lead to error in diagnosis. I recently encountered two young women under the age of 40 with thoracic pain on exertion, one of whom had diabetes. Their capacity for walking without pain was markedly impaired but their account of their pain was made with such glow and cheer and was so completely dissociated from the usual reaction of anxiety and apprehension accompanying this symptom in older people that the diagnosis was held in doubt for some time. Electrocardiograms, exercise tests, and response to nitrites proved coronary disease beyond question. But because of their unusual reaction to the pain, an error in diagnosis was escaped by a very small margin.

The literature on the effects of drugs on the pain of coronary artery disease often leaves one in great doubt as to whether the relief is psychologic or actually due to the drug. I might cite one or two illustrations. It is stated that digitalis increases the pain in patients with angina of effort, and there have been several papers in which pain has been studied before and after treatment with digitalis. A few years ago we studied a large group of ambulant patients with angina of effort to whom we gave large doses of digitalis over periods of weeks, alternating with placebo over similar periods of time. When we examined the records, which consisted of the judgments of the patients as to whether the pain was more or less in the period during which the drug was taken, we obtained figures of this kind: 15 per cent of the patients that received digitalis had more pain and 30 per cent had less pain; and for the placebo 15 per cent had more pain and 13 per cent had less pain. The use of xanthines for the control of pain in angina pectoris is another example. No sooner does one publish a paper stating that the xanthines given by mouth relieve coronary pain in about 80 per cent of cases, when another reports that they are of no value in most cases. We also subjected that question to a similar type of study and found that with theobromine the pain diminished in 22 per cent, while with sugar of milk in 25 per cent. In these experiments we applied a blind test. A real blind test is one in which the eyes of both patient and doctor are blinded, that is, the patient does not know what he is getting and the doctor does not know what he is giving. I don't believe it is generally recognized how important it is that the doctor who dispenses the medicine should not know what he is giving in a study of this kind, if he expects to derive an unbiased answer.

In the March 8, 1941 issue of the *Journal of the American Medical Association* a paper was published in which the author took issue with the view that the oral xanthines are of no help to patients with coronary artery pain. He also used a placebo, and this is what he had to say in conclusion about the business of keeping everybody in the dark when one tests a drug that is supposed to relieve pain: "In this connection should be mentioned the psychologic attitude of the clinician toward the drug in question. It is just as unfair in seeking a patient's evaluation of a drug to lead him to expect poor results as to lead him to anticipate good ones. I attempted to be as noncommittal as possible, but discerning patients may well have seen my enthusiasm for these particular xanthine drugs." There it is. The author seemed to recognize the psychologic factor. He attempted to deal with it by giving patients sugar of milk as a placebo and then lost the whole point in that he knew what he was giving at the time and communicated his enthusiasm for the xanthine to the patients.

I cite these as illustrations of how very careful one has to be in judging the effects of analgesics, because it is lack of this care that, I think, is responsible for the situation we discussed in a previous conference on the treatment of rheumatoid arthritis, when we listed thirty different drugs used for the control of the pain of rheumatoid arthritis, most of them in their turn falling by the wayside although they were introduced in the beginning with a great deal of enthusiasm.

DR. WOLFF: One type of pain which has psychologic implications and which we have not touched upon is the pain experienced by patients

with peptic ulcer during periods of anxiety, conflict, or stress Associated with the emotional state are certain bodily changes which in themselves give rise to sensations of pain Thus hyperacidity, hypermotility, and engorged vascular mucosa near a lesion may become painful when the acidity is increased or when the stomach changes its motility This is an open discussion and you are all participants

DR MCKEEN CATTELL At the risk of some repetition, I would like to emphasize the importance of your data in relation to the formulation of the mechanism of the action of analgesic agents

The fact that the effect of analgesic drugs is related to their influence on the reaction pattern to the pain, and further, that this is modified by psychologic factors, has been clearly shown by the discussion today It seems to me that we are not far wrong in assuming that the increase in threshold to pain following the use of a drug is due to the effect on the mental state, and I think, therefore, that a large component of morphine action, for example, is its influence on mood and on the ability of the patient to concentrate The tendency to concentrate on the pain is no longer present after the administration of morphine, and thereby the factor which makes the pain unbearable is removed I feel that if any one of us at this moment started to spend perhaps thirty seconds intently considering his position on these seats, he will find his position unbearable On the other hand, distraction such as comes from listening to an entertaining talk would permit us to sit in comfort for quite a length of time

DR WOLFF Thirty seconds would imply a low threshold Dr Barr, do you feel that frank suggestion has a legitimate role in the management of pain? What ought to be our attitude about such matters?

DR DAVID P BARR Certainly, suggestion is a most effective remedy I have been led to believe, however, that it is not a dependable measure for long continued use Not only does it tend to lose its efficacy because the mechanism by which it is applied is not perfect enough, but also it represents undesirable dependence of one individual upon another If perchance the other individual is lost, the therapeutic value of the procedure has also been lost I would be interested to hear more expert opinion from the psychiatrists

DR WOLFF Would you like to answer that, Dr Renne?

DR RENNIE I suppose the epitome of what one can achieve under suggestion is illustrated by hypnosis There is no question but what dramatic things can be done under hypnosis One can change the blood sugar and the blood pressure One can create pain and abolish pain I have never actually seen any deliveries under hypnosis but many have been reported in which the patient had very little pain experience I have seen hypnosis used in other conditions of intractable pain with considerable success and so I feel strongly that suggestion is a factor of very great importance It can, of course, miscarry unless used intelligently and advisedly

DR GOLD The place of placebos in the treatment of pain also needs to be better defined I remember some time ago, when discussing the matter of placebos with a group of students, a member of the staff who was there, heard me speak of sugar of milk as a placebo, and said "We use yeast tablets as a placebo because they also carry some vitamins" There is no objection to yeast tablets, but there is to the notion that a placebo as a therapeutic measure cannot stand on its own merits without the support of some vitamin There is a general feeling that in prescribing placebos we indulge in a kind of frivolity. The placebo is a legitimate form of therapy and ought to be pursued more diligently than it is, especially as a frequent substitute for a sedative

DR EPHRAIM SHORR I wonder whether we should not extend the concepts concerning pain to other sensations as well I find myself, for example, at this moment uncertain as to when I ought to let a homosexual male, who is having an enormous increase in energy as the result of saline injections, know that he has been able to get along without medication That is one instance Our experiences with the menopausal syndrome bring out clearly wide individual differences in the pattern of reaction to the menopausal state We base the treatment on these psychologic differences So it is with fatigue of so many of our psychasthenic individuals, who find themselves exhausted in the morning or after a sedentary day in the office, and who are capable of quite vigorous activity Suggestion may distract them from the awareness of the sensations, as alluded to by Dr Cattell Thus I think the ideas concerning pain which have been discussed may be extended to the treatment of a variety of discomforts

DR WOLFF Dr Binger, you had a question?

DR BINGER Not a question but something I wanted to say in relation to what Dr Gold said I think it is a pretty well-known experience that therapeutic procedures work better if the doctor himself believes in them That is the reason why quacks have an advantage over the rest of us, because they believe unqualifiedly in their art and are not trained scientifically to be skeptical as we are We cannot often administer a drug with as much conviction as one who has no skepticism

I do not think that this is an argument for not being skeptical, but skepticism certainly influences our therapeutics, and it also influences our judgment about suggestion and placebo. Some of us cannot give placebos with any conviction and in that case, I am sure, they will not do any good.

DR. GOLD: I think it is wise not to link the use of the placebo to the idea of the doctor's faith in his medicine. It is, of course, a fact that if the doctor has conviction concerning the value of the medicine and conveys it to the patient, the medicine is likely to be more effective than otherwise. But the placebo has no more need of this reinforcement than does digitalis in connection with a case of heart failure. The chief beneficiaries of blind faith on the part of the doctor are the medicines of uncertain pharmacologic actions. They acquire a reputation for merits which they do not deserve. There is nothing uncertain about the rule of a placebo. It has no pharmacologic actions. The placebo is merely a chemical agent used as a psychotherapeutic device. Its use is based on the proposition that some patients bear their troubles with less discomfort and, in some, organic symptoms are relieved by the taking of a "medicine" two or three times a day. That this is a fact was shown by the studies to which I have referred. The taking of a placebo brought about at least temporary amelioration of pain in about 25 per cent of patients with angina pectoris. Some patients leaned on it heavily. The effect was, of course, psychologic. The patients must have thought that we believed it was for their benefit from the fact that we prescribed it. You will recall, however, that we were trying to compare a dose of theobromine with a dose of a blank for their effects upon pain, and we did not know at the time which we were giving. We had to take every precaution, therefore, to avoid conveying to the patient our own notion of their value. We were in no position to influence even subconsciously the patient's judgment. The taking of the placebo had to carry its own weight without embellishment on the part of the prescriber. If we view the role of the placebo in this way, we need encounter no difficulties from the standpoint of scientific skepticism. The doctor needs only to decide which patient is likely to benefit from the psychologic effect of taking a "medicine." He needs to have no faith in the "medicine" other than to recognize the fact that taking a "medicine" does in some patients produce a wholesome psychologic effect. I believe that the placebo is most applicable to short-term treatments, and should never be allowed to take the place of long-range measures for psychologic adjustment.

DR. HARRY RICHARDSON: I wonder if ether deserves consideration. What is the difference in the state of the patient who has had morphine and the patient under ether?

DR. WOLFF: The scope of this discussion has been an arbitrary one. We are talking about analgesics, that is, about agents which produce degrees of comfort and relief of pain without disturbing too much awareness and consciousness, but ether is an agent which makes the patient comfortable only when consciousness is seriously disturbed. Certainly, ether is capable of raising the pain threshold just as alcohol is, except that ether is less compatible with consciousness.

DR. GOLD: I should like to ask a question which has a bearing on what Dr. Cattell said. How dependable do you think the threshold-raising power is as a final test of the analgesic power of a drug? The maximum threshold-raising effect of aspirin is about 30 or 40 per cent.

Are we safe in assuming that that ceiling effect does not represent the whole analgesic experience?

DR. WOLFF: Certainly! Aspirin, of course, has other effects. It has a slight effect on the mood in creating a feeling of contentment and detachment. It also induces relaxation and a feeling of sleepiness. All analgesic agents do that to a greater or lesser degree. Morphine, in comparison to aspirin, induces a change in mood and elevation of the pain threshold to a much greater extent. It induces a feeling of contentment, freedom from anxiety, and indifference to discomfort, pain, and anguish, and it also raises the pain threshold at least twice as high as does aspirin.

Therefore, would you not say, Dr. Gold, that the over-all action in pain can never be expressed in terms of threshold raising alone?

DR. GOLD: That is what I should say. Even though 0.3 Gm. of aspirin produces a ceiling effect on the pain threshold, a larger dose, such as 0.6 or 0.9 Gm. of aspirin, might exert a greater influence on the reaction to pain, and, therefore, a greater over-all analgesic action.

DR. WOLFF: Possibly some individuals get more sleepy with larger doses although the analgesia may not be much greater. The patient may somehow be able to slumber through his discomfort.

DR. CATTELL: Defining analgesia in terms of the threshold-raising effect is doubtless correct, but from the practical standpoint the question arises as to whether in the management of pain the over-all effect of drugs is not what should be considered.

I am inclined to doubt that it would be safe to judge relative analgesic efficacy on the basis of the threshold-raising effect alone.

Summary

DR. HARRY GOLD: The discussions in the conference this afternoon explored the composition, mechanisms, and relationships involved in the pain experience. Pain involves not only a physical perception but a psychologic reaction. Experiments indicate that under standard conditions the stimulus necessary to evoke pain is fairly constant for the same person at different times and for different people, but that the psychologic reactions to pain show wide differences. Several examples of the dissociation of these two phenomena, perception and reaction, were presented, such as the lack of pain from physical injuries in the excitement of games, and in sexual and religious experiences. Dr. Wolff has made use of the threshold for sweating as a simple device for measuring the reaction to pain. Attention was called to causes of differences in reaction to pain, namely, the implication of the pain, cultural and family patterns as exemplified by the emotional restraint of the English and turbulence of the Latin, and the conditioning of children by the family's reaction to early painful experience. It was indicated that specific pains have special meaning to some individuals as shown by fainting from venipuncture or fear of the dentist by individuals able to tolerate other pain with little disturbance. By accurate measure of the pain threshold Dr. Wolff has brought support to the common experiences that distraction, suggestion, confidence, and conviction alter the perception of pain.

We need to understand these matters as a basis for successful therapy of pain, and as a basis for proper interpretation of clinical experiences in the control of pain. It is agreed that suggestion has a proper place in the treatment of pain, epitomized in the use of hypnosis. Confidence in the physician and enthusiasm increase the efficacy of analgesic agents. By the same token, drugs without inherent merit often acquire a reputation for actions they do not possess.

There is a place for the therapeutic use of the placebo in the control of pain at the psychologic level. Analgesic drugs act to relieve pain in part by raising the threshold to the perception of pain, as appears to be the chief action of aspirin and other agents of that series. The analgesic power of these agents is much more limited than that of agents like morphine, codeine, and, to some extent, alcohol, which, in addition to raising the threshold, exert a marked effect in altering the reaction to pain, through change in the mood and the ability to concentrate on the painful experience.

PENICILLIN MORE WIDELY DISTRIBUTED

...roves, it has been ...vilian distribution ...f the Chemicals ... P. ... Board told the Penicillin Producers Industry Advisory Committee at a recent meeting, WPB reported on February 8.

A 20 per cent increase in monthly quotas of penicillin for more than 2,700 depot hospitals has been in effect since February 1, WPB said. Allocations for January, 1945 totaled 35,200,000,000 units (352,000 vials) as compared with 12,200,000,000 units allocated in May, 1944. Several tentative programs for the more widespread distribution of penicillin as soon as the supply situation warrants were presented to the committee for its consideration. Production in December, 1944 was 278,000,000,000 units (2,780,000 vials), while the January, ... requirements for penicillin will tend to decrease in a few months as stocks are built up, military representatives reported.

The committee discussed means of increasing the available supply of amyl acetate, used in the production of penicillin.

Use of amyl acetate is also required in the manufacture of protective coatings to meet military specifications. WPB suggested that other solvents be developed to be used in place of amyl acetate, in order to reduce the over-all consumption of the chemical, and that industry make a survey of its present recovery systems to ascertain if amyl acetate is being efficiently recovered. To the extent possible, production methods should be improved so that the output of penicillin ... use o... Sh... Adm... the committee was told. These shipments have been made only to those areas in which penicillin control committees have been established, and detailed monthly reports are required from each committee.

He also complained of chronic sinusitis which occasionally became severe, and he had some bleeding from the right nostril which he attributed to his sinusitis. The patient was told that he had Bright's disease two years before admission, ascribed to a quinsy sore throat three years before.

Significant in the systemic review were: dyspnea on very slight exertion (electrocardiogram report was negative), no cough or chest pain, no palpitation, 4 plus ankle edema for two months, very poor appetite; the patient was on a salt-free diet and on a meat-free diet for a year up until three months before admission. There was no nocturia at the time of admission, no gross hematuria, but red blood cells were reported on microscopy. In the last two months before admission, oliguria was noted but the volume was not measured.

Physical examination revealed a very thin white man, very pale, with a moderately enlarged abdomen. The patient appeared chronically ill, slightly dyspneic, and had a strongly uriniferous breath. Positive findings were: one temporal vessel markedly sclerotic, without palpable pulsation. Examination of the eyes revealed very pale conjunctivae; fundoscopy showed very pale eyegrounds —the blood column and retinal vessels appeared so transparent that underlying structures shone through. Arterial reflexes were increased, and there was compression of the veins at arterial crossings; no hemorrhages or exudates were seen. The nose was full of bloody crusts, but the sinuses were clear. The ears were normal. The teeth were poor, mucosa very pale, and small tonsillar tags were present without inflammation. There were some firm submaxillary glands; the neck veins were engorged, and pulsation was marked. Heart: P.M.I. was somewhat to the left of the M.C.L. The right border was 1 cm. to the right of the sternum. There was a blowing systolic murmur at the apex, heard also in the aortic area. There were no thrills. The blood pressure was 138/92; the pulse was 80; the sinus rhythm was regular. There were moist rales at both bases but no evidence of fluid. Examination of the abdomen showed the liver to be down four fingerbreadths and tender to deep palpation, but the edge was not well felt because of the abdominal distention. There was shifting dullness with slight bulging of the flanks. No other masses were palpable. There was 2 plus pitting edema of the feet, but no pretibial edema. The impression was of chronic nephritis, although it was not clear whether the edema was caused by kidney or heart dysfunction. The patient was apparently in congestive failure in addition to his nephritis.

Laboratory workup showed hemoglobin 24 per cent, 1,200,000 red cells, and 9,000 leukocytes, but the differential was so confusing that the diagnosis was deferred until better slides were obtained. Apparently the low viscosity of the blood affected the uniformity of the smear. The urea nitrogen was 112, creatinine 11, uric acid 15, sugar 80, CO_2 combining power 14.7. Total protein was 8.83, with albumin 3.92 and globulin 4.91. Albumin-globulin ratio was 79 per cent. Blood calcium was 9, inorganic phosphorus 8.3. Phosphatase was 3.7 Bodansky units. Total cholesterol was 64.

Urinalyses during the stay showed negative, trace, and positive evidence of albuminuria. Specific gravity was 1.010. There were occasional epithelial cells, 1 or 2 pus cells, 1 or 2 red cells, but no casts seen. Because of the confusing blood smear which showed a number of atypical leukocytes and some large blast-type cells, blood studies were carefully repeated, and blood findings were: 13,300 white blood cells, 36 per cent neutrophiles, 32 per cent lymphoctytes, 12 per cent monocytes, 15 per cent plasma cells, 2 per cent monoblasts, 3 per cent eosinophiles. There were many normoblasts and erythroblasts present. A sternal bone-marrow puncture showed marked infiltration of the marrow by plasma cells, many of which were atypical or dividing. This then suggested, in view of the increased globulin in the serum and the marrow findings, the possibility of a myeloma.

X-rays of the skull, leg, arm, and thorax revealed no recognizable change. There was no Bence-Jones protein in the urine, but despite this, some felt that the diagnosis should be plasma-cell myeloma of the bone marrow with myeloma of the kidneys.

Three 500 cc. transfusions were given with a final red count of 1,500,000 and 30 per cent hemoglobin. Two subsequent blood chemistry examinations showed urea 125 and urea nitrogen 87 (the latter was done on the day the patient died). The CO_2 combining powers for the third and sixth days both were 16.6. Venous pressure was 27 cm. of saline solution, and circulation time was twenty-five seconds with decholin. The temperature was between 97 and 98 F.; the pulse was about 82 for most of the stay. On the seventh day the patient, having become progressively dyspneic and gradually comatose, developed a fever of 103 F. and expired in a convulsion. He had been given vitamin C, vitamin B_1, had had 22 grains of digitalis, had been on a Carrel diet, and received 10 cc. of calcium gluconate solution intravenously each day. Frequent small infusions of 2 per cent glucose were given, averaging 2 liters intake. The maximum output for any day was 410 cc.

Comment

Myeloma of the kidney has been described by Perla and Hunter[1] as presenting a picture of large amounts of albumin in the urine; Bence-Jones albumose in 65 per cent of the cases showing kidney lesions, a low specific gravity, a low concentrating power, a rise in nonprotein nitrogen, a severe secondary anemia, and an edema usually caused by cardiac failure. The kidneys are pale, usually contracted, with a narrow cortex. The surface is smooth except where arteriosclerosis is marked, but there is severe tubular destruction in the cortex and medulla, which are extensively replaced by connective tissue, interstitial lymphocytic infiltration, casts in the intact, dilated, convoluted tubules of the cortex, and calcification of an occasional tubule in the medulla. However, the glomeruli are for the most part anatomically intact, but show slight hyalinization in some cases. Perla and Hunter described this as a picture of severe chronic nephrosis with evidence of secondary inflammation and fibrosis on contraction of the kidney. Bell,[2] in a survey of a large number of cases, concludes that the picture is not quite this typical, and the term nephrosis is probably confusing. In almost every instance in which autopsy was performed, arteriosclerosis of varying degree was noted, but most of the investigators attributed this to the fact that the patients were usually 50 years of age or over. Metastases to the kidneys were mentioned as pos-

sible in very malignant types of tumor, but none were described

The clinical diagnosis in this case, however, was chronic nephritis, and the general opinion was that the myeloma was incidental However, a limited autopsy was secured, revealing the true nature of the Bright's disease in this case

The autopsy was limited to an incision in the abdomen for removal of the kidneys and small specimens of liver and heart valves

The body was that of a well developed, fairly well nourished white man The hair on the head was dark The eyes were gray-blue, the pupil round, equal, and in mid dilatation Rigor mortis was almost complete Both lower extremities revealed a moderate degree of edema

On opening the abdomen, it was seen that the panniculus measured up to 2 cm in thickness, the musculature was well developed There was a large amount of dark straw colored fluid present in the abdominal cavity

The liver was very large, its surface finely granular, dark brownish red in color On section, it showed a characteristic "nutmeg" appearance

The spleen was also enlarged to about one and a half times its normal size The capsule was smooth but thick It cut with increased resistance The cut surface was dark red in color, and no pulp could be scraped with the back of the knife

The kidneys were diminished in size The capsule of each stripped fairly easily, leaving a fine, pale grayish pink surface On section, the cortex seemed diminished in thickness, its markings obscured The vessels stood out prominently The calyces and pelves were slightly dilated and contained much grumous material and many small stones, the largest measuring 0 8 cm in diameter These stones were soft and friable, gray-brown in color, their surfaces smooth

The heart was large and flabby The right auricle was enlarged and filled with much clotted blood Its endocardial lining was smooth and intact The tricuspid ostium admitted three fingers with ease, the tricuspid valve leaflets were thin and delicate The right ventricle was somewhat dilated but not hypertrophied The pulmonic valve was competent, its cusps natural

The left auricle was dilated, its endocardium smooth and glistening The mitral ostium was of average diameter, the leaflets thin and delicate, the chordae tendineae neither shortened, fused, nor thickened The left ventricle was dilated, the myocardium of average thickness The aortic valve was competent, its cusps showing slight atherosclerotic changes in the depth of the sinus of Valsalva The myocardium was very soft and friable, dark reddish brown in color The coronary ostia were widely patent There was a moderate degree of thickening and sclerosis of the coronary arteries noted, but nowhere was the lumen obliterated or markedly narrowed

The lungs, on palpation, were very voluminous and appeared congested The pleural cavities contained no free fluid

Inspection of the gastrointestinal tract revealed no gross abnormalities The hilar and abdominal lymph nodes did not appear enlarged

On microscopic examination the liver and spleen showed extensive infiltration with plasma cells while the kidneys showed the typical picture of myeloma kidney described above

References

1 Perla D and Hunter L Am J Path 6 285 (1930)
2 Bell, E T Am J Path 9 393 (July) 1933

HYPHOLIN, NEW FORM OF PENICILLIN, IS A SUCCESS

The discovery of a new drug, hypholin, made from penicillium notatum, the mold that produces penicillin, was reported January 30 in the Medical Press and Circular of London, England The drug contains, in addition to penicillin bodies, the living hyphae (filaments) of the mold

Hypholin has resulted from extensive investigations by research workers following animal and human trials with earlier preparations of this type, known as vivicillin Hypholin differs from the latter in possessing a much higher penicillin potency and in being produced from a more complex culture medium

Many types of clinical conditions over several

[illegible] laimed are in [illegible] pneumonia, [illegible] staphylococcal [illegible]

It is hoped by its originators that the new drug will open up the bottleneck caused by inadequate supplies for general use of penicillin, now reserved for the services and a few desperately ill civilian cases Wider [illegible] and gargles is f and doctors r license by the Ministry of Health The material in a suitable form is already available to the veterinary profession for treating farm and domestic animals

Early in 1944 the discovery of vivicillin was prematurely announced, and misleading reports in the press brought discredit on the investigations, it is said Since then much work has been done in research laboratories and hospital wards toward the improvement of the original preparations Particular attention has been given to increasing the purity and potency This work has resulted in hypholin, which shows a potency equivalent to two to three thousand units of penicillin per hundred It has been possible to administer large doses of penicillin bodies through enteral routes without fear of toxic reactions —*N Y Times, Jan 31, 1945*

Additional Annual Reports

To the 1945 House of Delegates
Medical Society of the State of New York

Report of the Board of Trustees

To the House of Delegates; Gentlemen:

Immediately upon the adjournment of the 1944 meeting of the House of Delegates, the members of the Board of Trustees met and organized under the chairmanship of the senior member. The new member, Dr. Albert A. Gartner, from Buffalo, together with Drs. William H. Ross and George W. Kosmak, was assigned to the Committee on Investments. Dr. Thomas M. Brennan retained his position on the Special Committee on Publication. Dr. George W. Kosmak has continued as chairman of the Special Committee on Office Management and Administration.

These two very important committees, originally set up by action of the House of Delegates, are practically identical in membership and meet conjointly. This arrangement insures the attendance and active participation in all deliberations of two of the Trustees. Furthermore, by establishing a harmonious understanding and complete cooperation, a smooth and efficient administration of the Society business has been secured. That this plan has worked out successfully was conclusively proved during the year, when, owing to the untimely death of Dr. Peter Irving, the Council and official family were confronted in rapid succession by a series of situations emergent in nature and pressing for immediate solution. The Council Committee on Reorganization had at their disposal the accumulated data and experience of these special committees.

In referring to the death of Dr. Peter Irving, the Board of Trustees feels impelled to emphasize the great loss the Society has sustained in his passing. He was, as we all know, a hard-working, conscientious, loyal, and devoted servant. The tremendous growth and expansion of Society activities during his incumbency in office made his official life very arduous. He did not falter; neither did he flinch; but, on the contrary, with surprising energy and enthusiasm he took upon himself the ever-increasing burdens. It was not until his work was done that those who were close to him came to a realization of the full magnitude of the services he rendered in behalf of our membership.

Early in the year the Trustees accepted with genuine regret the resignation of Dr. Joseph Lawrence as Executive Officer of the Society, following twenty years of fruitful service in its behalf. Dr. Lawrence has accepted the invitation of the Trustees of the American Medical Association to organize and direct its new office in Washington, D.C. After looking over the field of available applicants, the Council selected Dr. Robert R. Hannon to succeed Dr. Lawrence. Following personal conferences with Dr. Hannon, a satisfactory contract was drawn up and executed.

The Trustees were concerned about the Bureau of Workmen's Compensation. Following prolonged negotiations a contract was entered into with Dr. David Kaliski, who had been selected by the Council to be the full-time director of the Bureau of Workmen's Compensation.

Noting the action of the House of Delegates in regard to the establishment of a Bureau of Insurance, the Council lost no time in exploring the field and interviewing prospective candidates. Mr. George P. Farrell was agreed upon and his name sent to the Board of Trustees with his personal biography and credentials. A contract was entered into with Mr. Farrell and signed.

Drs. Kaliski and Hannon and Mr. Farrell fully understand—and it is so stated in the individual contracts—that they are in fact responsible to and under the direction of the Council and a Council-appointed committee. They are to carry out the policies established by the Council and conduct the work of their respective Bureaus under the direction of the Council or appropriate Council Committee.

The members of the Board of Trustees have been mindful of the duties, obligations, and responsibilities placed upon them by the Constitution and By-laws. At the same time they have endeavored to cooperate fully and promptly implement and expedite the various programs initiated by the Council or House of Delegates. To this end all necessary information, advice, and counsel are sought through personal consultation, group conferences, and expert consultation.

It has become increasingly evident that the Society has outgrown its quarters on Madison Avenue in New York City. The growth of activities, the establishment of new Bureaus, the housing of personnel—all present problems of much-needed additional space, and a demand for attention. The Trustees are preparing to meet this situation so that when the Council finally acts the demands will be adequately met and the expense of making the change kept at a minimum.

The Council has advocated the study of establishing a pension system for employees of the Society. Preliminary work in this direction has already been done; considerable factual data have been compiled, all of which will be made available to the new committee appointed by the President of the Society. The committee, consisting of three Trustees, is charged with the duty of exploring this subject further, to the end that, if found feasible, some plan might be prepared and presented to the Council and House of Delegates. The appointment of Dr. Ross as chairman of the committee, including Dr. Kosmak as one of the members, gives the assurance that whatever recommendation comes from the committee will be based on thorough study, mature deliberation, and sound judgment.

The financial world has been confronted and challenged by an array of unprecedented situations precipitated by strains on national and international economy incident to the present global conflict. The financial status of any organization is not entirely free from possible adverse effect. Realizing this

situation, the Trustees have been particularly concerned with the management of the invested funds of the Society. The Chase National Bank, as in the past, has continued its service of rendering regular reports containing valuable information and expert advice concerning the invested funds of the Society and the handling of the same. The reports of the Treasurer, the auditors' report, and the report of the Publication Committee reflect the sound financial situation in which the Society finds itself. In view of the completeness and clarity of these reports it is sufficient to call attention to but a few items.

The operating expenses are well within operating income. The membership dues amounted to $119,934, an increase of $3,927 over the previous year. Remission of dues for members in service amounted to $47,210. The income from the 1944 Annual Meeting was in excess of $8,661 over the previous year. This amount was earmarked to defray costs of future meetings. In spite of carefully planned economy, administrative expenses have increased over the previous year by $4,563.41. The Public Relations Bureau costs increased $5,975.58 The most conspicuous item is the balance on the favorable side from the JOURNAL management, over $30,000 net. The attention of the members is particularly directed to the Treasurer's Report on this matter.

The investment fund shows an increase of $10,500 in excess of the previous year. Some holdings have been sold at a small profit; the market value of others has improved to the extent of $10,500. The Society holds United States War Savings Bonds in the amount of $91,000 and United States Treasury Bonds in the amount of $65,000. The stocks held are diversified and show appreciation amounting to $7,336.

In their efforts to conserve Society resources, the T[illegible] interested advice and sound recommendations, the Trustees are particularly indebted.

Respectfully submitted,

GEORGE W. KOSMAK, M.D.
JAMES F. ROONEY, M.D.
WILLIAM H. ROSS, M.D.
ALBERT A. GARTNER, M.D.
THOMAS M. BRENNAN, M.D., *Chairman*

April 11, 1945

Report of the Council

PART XIII

Malpractice Defense and Insurance

The Council Committee on Malpractice Defense and Insurance:

J. Stanley [illegible], M.D., Chairman, New York
Thomas [illegible]
James M[illegible]
W. P. A[illegible]
Kirby D[illegible]

submitted the following report, which the Council approved.

REPORT

PART I

1. [illegible]
2. [illegible]
3. [illegible]surance Company of Boston

PART II

1. Current operations of the Group Plan
2. Reduction in rates
3. Amendment of the policy contract

PART III

1. Review of purposes for which the Group Plan
2. [illegible] of the Society
3. [illegible]ittee on Mal-
4. [illegible]

PART I

1. Directive by the House of Delegates.—At the 1944 meeting of the House of Delegates of the Medical Society of the State of New York, held in New York City, the House directed the Council Committee on Malpractice Defense and Insurance to make a complete survey of the entire malpractice insurance situation in this state and bring in its recommendations to the Council, and furthermore, [illegible] by letter of the [illegible], the Committee [illegible] insur[illegible] of the [illegible]tion in 1921.

At the outset the Committee was of the opinion that the only question involved in the directive was one of rates; that is, whether we could obtain from a reliable insurance company lower rates for the Group Plan than those we now have. It quickly became evident, however, that a more important element was involved; [illegible] lying any consideratio[illegible] ervation of the control [illegible] the elements of the Group Plan which in turn govern not [illegible] also [illegible] fense [illegible] elements are of vital concern to every member of the Society and rates alone are of secondary importance. No rates can be acceptable for the Group Plan, regardless of any temporary saving they offer, if they [illegible] both now and in the future.

2. Basic Requirements for the Group Plan.—Early in its study the Committee felt the need of a [illegible] the Group Plan. These requirements or principles had been well established but they had never been brought together and recorded. After analyzing each element involved, the Committee adopted the following as the minimum basic requirements for the Group Plan:

(*a*) The company shall establish to the satisfaction of the Society that it desires without reservation to enter into a joint undertaking with the Society to study the problems of malpractice defense and insurance in New York State and to provide protection to members of the Society desiring it under a group plan which will place and retain in the hands of the Society maximum control over the vital elements of the enterprise.

(*b*) The plan shall be a group plan of insurance.

(*c*) The company shall issue to the Society as trustee for the members a master policy which will set forth all of the terms and conditions of the insurance. The policy contract shall be amended from time to time to meet the needs of modern practice of medicine by agreement between the Society and the company, and no amendments shall be made in the contract except with the approval of the Society. Members shall be insured under the terms of the master policy by individual certificates issued to them and each certificate shall have printed on the back thereof a copy of all terms and conditions of the master policy as amended.

(*d*) The company shall issue a certificate of insurance to any member in good standing of the Society who applies for it (unless otherwise directed by the Society) at rates approved by the Society.

(*e*) The company shall not issue malpractice insurance to any physician or surgeon in the State of New York except to members in good standing of the Society and to members of the Homeopathic Medical Society of the State of New York.

(*f*) All suits and claims against members insured under the master policy shall be defended exclusively by the legal counsel for the Society and the cost of such defense shall be charged to the loss experience of the Society.

(*g*) The members insured under the master policy shall constitute a self-rating group and the rates charged under the master policy shall be computed annually upon the actual loss and loss expense incurred, plus proper and agreed ratios for operating expenses and profit. There shall be no loadings in the rates for salaries, allowances, commissions, claim expense, dividends, or profit, except those contained in the predetermined and allowable expense and profit ratios, and no change shall be made in those ratios except with the approval of the Society.

(*h*) The company shall furnish the Society, upon an approved form, analyzed loss vouchers approved by the legal counsel for the Society covering all expenditures for losses and loss expenses incurred and no charge for closed suits and claims shall be included in the loss experience under the master policy unless covered by such a voucher.

(*i*) No estimated reserves for outstanding or anticipated suits and claims shall be included in the loss experience under the master policy except those approved by the legal and indemnity representatives of the Society.

(*j*) The company shall recognize the indemnity representative of the Society as the sole representative of the Society and the broker of record for all members insured under the master policy. On behalf of the Society he shall have full charge of all underwriting operations, cost accounting, and rate computations, and report directly to the Chairman of the Committee on Malpractice Defense and Insurance.

The present Group Plan and the carrying agreement with the Yorkshire Indemnity Company meet all these requirements.

3. **Report on American Policyholders Insurance Company of Boston.**—The directive of the House of Delegates resulted from the active solicitation of members of the Society and representations made to them by agents of the American Policyholders Insurance Company of Boston. This was brought to the attention of the House by the delegates from Bronx County who urged that this company, being at present the leading competitor of the Group Plan, be given a hearing. As the Committee's inquiries indicated that this was the only company alleged to be interested in the Group Plan, representatives of that company were invited to meet with the Committee. Mr. Douglas R. Holmes, the local New York City manager, had been designated by that company to discuss this subject with the Society and two conferences were held with him. In addition to the members of the Committee, the second conference was also attended by the president and other officials of the Society. Prior to the meetings, the Group Plan and its requirements were explained rather fully to Mr. Holmes. He was advised as to the purpose of the meetings far enough in advance to give him ample time in which to prepare for them and, at both conferences, he was given every opportunity and urged to present any proposals which his company had to offer to the Society. He was also urged by letter to have present at the second conference an executive officer of his company who had authority to reach decisions with the Society and to commit his company to the Society, but no such officer was present.

Mr. Holmes' proposals consisted only of an offer to the Society as a whole of the policy and rates which his company had been offering to doctors in New York as individuals. Upon questioning, he stated that the company would be willing to adopt a group form of insurance and somewhat reluctantly he agreed that all members would be eligible for protection unless his company was able to convince the Society to the contrary in certain cases. He would not, however, commit his company to any of the other requirements for the Group Plan, particularly those through which the Society controls the legal defense, cost accounting, and rate projections. The Committee was unsuccessful in its attempt to establish contact with any responsible officer of the company or to secure from such an officer, in writing or otherwise, anything which would in any way commit the company to the Society or even confirm the statements made by Mr. Holmes to the Committee. For these reasons the Committee is convinced that this company is not interested in the Group Plan or the malpractice insurance business of the Society unless it can be secured on a basis which would permit it to be handled purely as a company enterprise, the Society being excluded from any measure of control over the vital elements of its administration and management.

A few weeks after this conclusion was reached, it was announced in the public press that, as respects a major part of its business in New York State, this company would discontinue paying dividends to policyholders as of March 1 of this year; that, as of that date, it had canceled all of its agency contracts and brokerage connections; and that thereafter it would not write any of its principal lines of insurance in this state. It is also reported that the company is planning to close its New York City office, which is believed to be the only one it has in this state.

The true development of malpractice insurance takes many years to mature. This is not a business

that can be handled on a year-to-year basis and, for that reason, the Group Plan must be in the hands of

this state under a widely advertised plan of policyholders' participation has served to strengthen the

pal lines of insurance in this state appears to be a

malpractice insurance business of the Society if that, too, proved to be unprofitable. The exposure of our business to the prospect of being abandoned some day in a similar manner cannot be tolerated by the Society.

In the circumstances, the Committee cannot recommend that the American Policyholders Insurance Company be considered as the carrier of the Group Plan. Furthermore, the Committee is of the opinion that no temporary saving in rates would justify any member of the Society in going outside the Group Plan to buy his malpractice insurance as an individual.

Any report on the Group Plan would be incomplete if it did not include a favorable reference to the Yorkshire Indemnity Company and its officers. Mr. Alan O. Robinson, the vice-president and general manager of the company, and Mr. Horace Crowell, assistant secretary and manager of the

for which the Group Plan was organized and have bent every effort to help carry them into effect. They have met every obligation fully and promptly and have granted every request made of them by the Society.

The Group Plan is unique in that, in its operations, it is, in

company and

success upon

and the good

The Society can be proud of the fact that, throughout the life of the Group Plan, it has met all of its obligations to the company and can consider itself fortunate to have the Group Plan in the hands of a company whose officials have so scrupulously lived up to both the spirit and letter of the terms of the carrying agreement under which it is operated.

PART II

1. **Current Operations of the Group Plan.**—The detailed tabulation of the cost of operating the Group Plan for the nine years ending December 31, 1944, has been received and studied by the Committee

2. **Reduction in Rates.**—The downward trend of loss costs noted at the end of 1943 has been confirmed and, as the rates are predicated on those costs, it is possible to reduce the rate for minimum limits of $5,000-$15,000 to $28, effective May 1, 1945. As this proportionately reduces the rates for all higher limits, a new rate schedule has been prepared and approved. On and after May 1 all new and renewal policies will be issued at the new rates.

The 70 per cent reduction for members serving in the armed forces will apply to the new rates.

The Committee desires to point out that the reduction in rates will permit members to increase the amount of insurance they are now carrying without additional cost, and it is recommended that they do so.

Since 1924, protection on account of x-ray therapy has been excluded from the policy and a substantial surcharge has been made for that specialty. Due to the successful efforts made by the x-ray therapists to reduce the cost of their own losses, the surcharge for their protection has been reduced from time to time until last year it was only one fifth of the original charge required in 1924. A study of the costs this year indicates that the losses growing out of x-ray therapy have finally been reduced to the general average of other branches of medical practice in this state, and it is now possible to eliminate the extra charge for that specialty. The Committee believes that the x-ray therapists of the Medical Society of the State of New York are the first to bring their losses down to this level because additional premiums running as high as 100 per cent of the base rate are still being demanded by insurance companies in all other parts of the country.

The exclusion of x-ray therapy will be retained in the policy contract as at present, but protection on account of it will be granted to qualified members by endorsement, without additional charge.

As directly bearing on the question of rates, it is of sufficient interest to quote here two paragraphs of a letter from the secretary of a prominent insurance carrier with broad experience in the field of malpractice insurance:

"The doctors of a given state through their society are to a very large degree in a position to control the rate for their state. In those states where the doctors have recognized this situation and approached it from the standpoint of minimizing their losses through proper cooperation among themselves and resisting unjust claims, a very favorable rate has resulted. As you know, we have been very successful in a number of states in working with the officials and committees of the State Society along these lines. In these cases the doctors were not constantly haggling with us over the question of rates, with the idea of trying always to get the lowest possible figure, but, on the other hand, they spent their time and efforts in cooperating and in the defense of unjust claims, with the result that the losses were materially reduced and consequently their rates were reduced correspondingly.

"In our best judgment, unless and until the officials of a State Medical Society realize that rates

angle, they are never going to get other than a

which for the

ure upon the

3. **Amendment of the Policy Contract.**—Since the members insured in the Group Plan constitute a self-rating group, the Society has always felt that the costs of the group as a whole should not be augmented by losses caused by substitutes for insured members, unless such substitutes were members of the Society and individually insured. Experience has shown, however, that this restriction frequently works a hardship that may be out of proportion to the loss costs involved, because the services of a sub-

stitute usually are required only in an emergency when there seldom is time in which to find a doctor available who is an insured member of the Society. For this reason, the policy contract has been amended as of May 1, 1945, to extend protection on account of the acts of *any* licensed and qualified physician or surgeon while acting as a substitute for an assured in an emergency when the assured is prevented from acting for himself.

The intent of this amendment is to apply to emergencies of the moment and not to those which call a member away from his practice for a day or two, nor to those arrangements whereby a member has his emergency calls taken with some regularity by a substitute. In such circumstances, it is presumed that the member himself or someone in his office will have ample time in which to arrange for the services of a substitute who is a member of the Society and individually insured in the Group Plan.

The policy, as heretofore, will continue to protect the assured on account of the acts of *anyone* in the care of a patient previously seen and diagnosed by the assured.

These changes in rates and the policy contract have been made in accordance with the agreements covering the operation of the Group Plan and should make participation in it increasingly attractive to all members.

There are several other proposals before the Committee for consideration which will require considerable more investigation and study before they can be reported to the Council.

PART III

1. Review of Purposes for Which the Group Plan Was Organized.—A majority of the members of the Medical Society of the State of New York today have come into the practice of medicine since 1921, when the Group Plan of malpractice insurance and defense was organized. It was a well-established institution when many of them joined the Society and, therefore, it is perhaps natural that they should take it for granted and feel no personal responsibility for supporting and maintaining it. It is, however, one of the most important activities of the Society and it is essential that all members understand the significance of this undertaking.

Contrary to the belief of many, the Group Plan was not evolved or inspired by an insurance company nor has it ever been controlled by any company beyond the terms of the carrying agreement under which it is operated. It should be said, however, that, in the beginning, the Aetna Life Insurance Company rendered valuable assistance in helping to work out many of the details of operation. The plan was conceived and all of the essential details were worked out by the Society and its advisers to accomplish the following:

(*a*) Combine the facilities of organized medicine with those of a strong insurance company in a united front to meet and combat the rapidly increasing growth of unjust suits and claims against medical men in this state.

(*b*) Improve the quality of legal defense furnished insured members of the Society and preserve the principles of defense established by the Society.

(*c*) Provide a satisfactory form of policy contract for members of the Society who wanted to be insured.

(*d*) Provide sound insurance to members at rates based solely upon their own losses plus minimum charges for operating expenses and profit or handling charge for the company, and make such insurance available to all members of the Society.

(*e*) Assist the Society in maintaining free legal defense for uninsured members.

(*f*) Establish, through the appointment of an indemnity representative of the Society, an insurance department that would be responsible to the Society for supervising and managing all the details of operation, thus guaranteeing that the purposes for which the Group Plan was organized would be fully carried out.

After a careful study of the entire undertaking, the Committee is satisfied that all of those aims have been achieved and that the Group Plan is stronger today than at any time in its history. How well it has succeeded in the matter of cost may be judged by the fact that, although it began operations in difficult times when the prevailing rate for a minimum policy of $5,000-$15,000 limits was $45, the average cost of such a policy in the Group Plan over twenty-four years has been only $72.75. Today the rate is $28. Two years hence it may be higher or lower but, whatever it is, the members will have the satisfaction of knowing that they are paying only for their own losses plus minimum charges for expenses and profit approved by the Society.

2. The Indemnity Representative of the Society.—For the same reasons that many members have not understood the purposes and significance of the Group Plan, they have not understood the position and function of our indemnity representative. Again, contrary to the belief of many members, Mr. Wanvig is not associated with, nor is he the representative of any insurance company and has not been such since he came to the Society in 1921. He was appointed by the House of Delegates as the indemnity representative of the Society and he has no other duty or activity. The success of the Group Plan has been due in a large measure to his competent management of its affairs.

3. Reorganization of the Committee on Malpractice Defense and Insurance.—It has previously been said that the Group Plan is one of the most important activities of the Society. In addition it is, in itself, a large business. For some years after its organization the indemnity representative reported directly to the Executive Committee, as no special insurance committee has been appointed. Later, a committee of one was designated to be the connecting link between the office of the indemnity representative and the Executive Committee. This was enlarged to a committee of three and developed into the present Council's Committee on Malpractice Defense and Insurance. This has proved to be generally satisfactory but, from time to time, the entire membership of the Committee changes and, when that occurs, each new member is obliged to educate himself in all the intricate details of the makeup and operation of the Group Plan. This is a long and sometimes rather difficult task for medical men who have had no previous experience with such matters, and yet it has to be done before any competent decisions can be made.

The need for having some permanent member on the Committee has long been felt and recommendations to that effect have been made by previous committees. The recommendations have not been approved, however, because, as presented, they might have deprived the President of his right to appoint the chairman of one of his committees. That may be a valid objection, but it still does not provide for the Society the continuity of contact with the Group Plan, the need for which becomes increasingly apparent as the active members in the

[Continued on page 1020]



The potentiation of the central action of phenobarbital by the belladonna alkaloids (Friedberg, Arch. f. exp. P. & P. CLX, 276) renders possible attainment of desired effects with relatively small doses, thus avoiding "hang over" and other unpleasant side-actions. In contrast to galenical preparations of belladonna, such as the tincture, Belbarb *has always the same proportion of the alkaloids.*

Indications: Neuroses, migraine, functional digestive and circulatory disturbances, vomiting of pregnancy, menopausal disturbances, hypertension, etc.

Formula: Each tablet contains ¼ grain phenobarbital and the three chief alkaloids, equivalent approximately to 8 minims of tincture of belladonna.

Belbarb No. 2 has the same alkaloidal content but ½ grain phenobarbital per tablet.

CHARLES C. HASKELL & CO., INC., RICHMOND, VIRGINIA

[Continued from page 1018]

Society grow further away, in point of time, from personal knowledge of the causes which brought the Group Plan into being and the ideals which govern its operation. This enterprise has now been in existence twenty-four years and, so long as it continues to accomplish the purposes for which it was organized, there is every reason that it should be continued indefinitely and certainly past the years of active participation in Society affairs of those whose foresight sponsored it and whose support has brought it thus far along the road of service to the Society. This long view of the matter requires a continuity of contact with our insurance affairs which is not possible in our present setup.

To provide supervision of these insurance matters by members of the Society who are thoroughly and continuously familiar with all of the details of the Group Plan and, at the same time, to meet the objections raised to previous proposals, the Committee recommends the following:

(*a*) That a board on malpractice insurance and defense consisting of five members be created to replace the present Council Committee on Malpractice Defense and Insurance.

(*b*) That the members of the board be appointed for one, two, three, four, and five years, respectively, and that each year the incoming president appoint a new five-year member.

(*c*) That the Secretary, Treasurer, Indemnity Representative, and Legal Counsel be ex officio members of the board.

(*d*) That the board meet at the call of its chairman and have duties similar to those of a board of directors of a corporation; that it receive the reports of and advise with the indemnity and legal representatives and reports its findings and recommendations to the Council.

(*e*) That the recent chairmen of the Committee on Malpractice Defense and Insurance who are now active in Society affairs be requested to serve on the first board appointed.

The indemnity and legal representatives of the Society concur in this recommendation.

4. **Adherence to the Group Plan.**—Each year the Committee draws attention to the suits and claims filed during the previous year against uninsured members and the House of Delegates requests the county societies to bring the need of insurance protection to the attention of their members. Nevertheless, each year brings the usual quota of suits against members who, because they believed they did not need insurance, or for other reasons, failed to secure protection under the Group Plan and each of them must now face the possibility of substantial loss which must be paid for from his own pocket. There are, at the present time, 160 such cases pending in the office of the legal counsel.

The Committee is of the opinion that no member of the Society can afford to practice his profession without malpractice insurance in the Group Plan, but it has never been the policy of the representatives of the Society to urge such insurance upon a member who, after considering the matter carefully, concluded that he did not need or could not afford it. However, the situation is quite different in the case of members who have indicated their desire to be protected by buying their insurance as individuals outside the Group Plan. Probably many of them have not understood that their reasons for such action could not outweigh in importance, both to themselves and the rest of the Society, their adherence to and support of the united effort that the Group Plan stands for in this state. This point of view can best be presented to such doctors by fellow members of their own county societies whose advice they would value.

The Committee recommends, therefore, that the Society request the county societies to appoint special committees or direct their committees on medical economics to bring this aspect of the matter to the attention of the members of their counties; that it be discussed at appropriate county society meetings; and that publicity be given to the campaign in county society publications. Much has already been done and the indemnity representative, by mail and by personal visits, will continue to bring the Group Plan to the attention of all members not insured in it. However, maximum results will not be obtained until members in each community who believe in the Group Plan actively use their best influence to increase the participations in it. That is the surest way to preserve unity and to stabilize and lower rates.

The Group Plan was organized solely for the benefit of the members. It is operated by the Society and its representatives exclusively for the benefit of the members. It has accomplished every purpose for which it was organized and, for these reasons, it deserves the loyal support of every member of the Society.



Reasonable TREATMENT OF HYPERTENSION

Successful management of high blood pressure calls for a regimen which is adjusted to individual requirements. Physical activity is generally curtailed and overwork is avoided. In certain circumstances special diets are prescribed and the use of stimulants is restricted.

These measures are often supplemented with the administration of Theominal. This combined vasodilator and sedative aids in reducing blood pressure to a more normal level. As a consequence hypertensive symptoms are relieved and the risk of complications is reduced.

DOSAGE: The customary dose of Theominal is 1 tablet two or three times daily; when improvement sets in the dose may be reduced. Each tablet contains theobromine 5 grains and Luminal* ½ grain.

*Luminal (trademark), Winthrop Chemical Company, Inc., brand of phenobarbital.

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Over-the-Counter Sale of Sulfonamide Drugs

Report of the Subcommittee of the Committee on Public Health Relations of the New York Academy of Medicine

SECTION 118 of the Sanitary Code of the City of New York prohibits the sale of sulfonamide drugs, whether for internal or external use, without a prescription. Two groups of sulfonamide preparations are excepted, namely, sulfonamide nose drops containing not more than 2.5 per cent of sulfa drugs and adhesive bandages containing sulfathiazole. (The usual concentration of the drug in these bandages is 6 to 12 mg. of sulfathiazole per inch of bandage.) These two exceptions have been allowed because (1) the Federal Food and Drug Administration permits the over-the-counter sale of these products, provided that they bear proper precautionary labels and directions for use, and (2) at the time this ruling was made there was no actual proof that the external use of the sulfa drugs in small concentrations had caused any harm.

For advertising reasons sulfa drugs are now being added to various kinds of salves, tape bandages, shaving creams, and similar products which are sold under well-established proprietary names. Of late, one of the drug concerns applied to the Health Department for permission to sell without prescription a suspension containing 5 per cent of sulfathiazole. In view of this and in view of the fact that more and more reports appear in the literature to the effect that topical application of the sulfa drugs can arouse a hypersensitivity resembling an allergic phenomenon, the Commissioner of Health submitted to the Committee the question of what action the Board of Health should take in this regard.

After looking into the matter carefully, your Subcommittee has come to the conclusion that clinical experience bears out the fact that a small percentage of people become sensitized to the sulfonamide drugs, that a severe systemic reaction may be produced in these persons when the drugs are administered a second time, and that a minute amount of the sulfonamide drugs applied to the unbroken skin or to the mucous membranes can and does sensitize an individual even more quickly and with greater certainty than when such drugs are administered by mouth.

Because such sensitization is often dangerous and prevents the use of the sulfonamide drugs in treatment of conditions in which they are particularly indicated, because over-the-counter sale of preparations containing sulfonamides will expose many persons to the danger of sensitization, and because the wide use of the sulfonamide drugs in ineffective concentrations may result in an increase in organisms resistant to the sulfonamides, your Subcommittee recommends that, until such time as clinical evidence may justify a contrary course of action, Section 118 of the Sanitary Code of the City of New York be so amended as to eliminate all exceptions from the clause which prohibits the over-the-counter sale of sulfonamide preparations.

The Subcommittee wishes to suggest the desirability of making this recommendation known to the general public. The Subcommittee likewise considers it desirable to issue a statement on the part of the Committee on Public Health Relations to the general profession warning against the unnecessary use of sulfonamide preparations for the treatment of minor conditions.

Respectfully submitted,
GEORGE MILLER MACKEE, M.D., *Chairman*
McKEEN CATTELL, M.D.
RUSSELL L. CECIL, M.D
ROBERT A. COOKE, M.D.
E. H. L. CORWIN, Ph.D., *Secretary*

February 27, 1945

Approved by the Committee on Public Health Relations of the New York Academy of Medicine on March 5, 1945.

SCIENTIFIC HELP SEEN FOR PSYCHONEUROTICS

New methods designed to reduce the number of psychoneurotics will be developed as a result of draft board findings, Col. Samuel I. Kopetzky, chief medical officer of Selective Service in New York City, predicted in an address before sixty members of the Advertising Women of New York at the Hotel Belmont-Plaza.

A veteran of three wars, Colonel Kopetzky told how typhoid fever was conquered after the Spanish-American War and how technics in treatment of wounded after World War I had ultimately led to the discovery of the sulfa drugs.

Public consciousness had not been fully roused on psychoneurotics until a national appraisal of Selective Service rejections approximated their number at 30 per cent of 4,000,000 rejected.

Colonel Kopetzky observed that "this deviation from the behavior pattern manifests itself at the early age of 5 or 6 years. Certain symptoms, such as confused sentences, are noted in kindergarten children." To find whether teachers may be at fault in their methods of handling such children or whether it can be attributed solely to family background and environment, Colonel Kopetzky is studying 1,000 cases, 500 of which have been obtained through the Child Guidance Institute. The other 500, Colonel Kopetzky explained, are cases of persons revealing psychoneurotic tendencies but who were not under institutional supervision Findings will be forwarded within the next few months, Colonel Kopetzky said, to the National Committee of Physical Fitness and Health.—*N.Y. Times*

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Postgraduate Medical Education

Programs arranged by the Council Committee on Public Health and Education of the Medical Society of the State of New York are published in this Section of the JOURNAL. *The members of the committee are Oliver W. H. Mitchell, M.D., Chairman (428 Greenwood Place, Syracuse); George Baehr, M.D., and Charles D. Post, M.D.*

Chemung County Teaching Day

GENERAL medicine is the subject of the teaching day that was held on May 2 for the Chemung County Medical Society at the Mark Twain Hotel, Elmira.

The program of the day was as follows. At 4:00 P.M. Dr. A. Wilbur Duryee, associate clinical professor of medicine, Columbia University College of Physicians and Surgeons, discussed "Peripheral Vascular Diseases." Following Dr. Duryee's talk at 5:00 P.M. Dr. Edward F. Hartung, assistant clinical professor of medicine, Columbia University College of Physicians and Surgeons, discussed "Newer Aspects in the Treatment of Arthritis."

After a dinner at 6:30 P.M. the program resumed at 8:00 P.M. with Dr. Leslie A. Osborn, assistant professor of psychiatry, University of Buffalo School of Medicine, lecturing on "The Recognition and Management of Psychiatric Problems in General Practice."

The teaching day has been arranged by the Council Committee on Public Health and Education of the Medical Society of the State of New York.

Résumé of Hematologic Disorders

"A GENERAL Résumé of Hematologic Disorders Including the Anemias" was given by Dr. Ellery G. Allen, associate professor of clinical medicine and assistant professor of clinical pathology, Syracuse University College of Medicine, at a meeting of the Oneida County Medical Society on April 10 at the Hotel Utica, in Utica.

The instruction was presented by the Council Committee on Public Health and Education of the Medical Society of the State of New York.

On May 10 Dr. Allen will present the same subject to the Seneca County Medical Society. The meeting will take place at the Armitage Tea Room, Seneca Falls, at 2:00 P.M.

Cardiac Instruction in Jefferson County

MANAGEMENT of acute cardiovascular emergencies was the subject of the talk by Dr. Clarence de la Chapelle, professor of clinical medicine, New York University College of Medicine, when he spoke to members of the Jefferson County Medical Society on April 12 at the Black River Valley Club, Watertown.

This postgraduate instruction was arranged by the Council Committee on Public Health and Education of the State Medical Society.

Steuben County Lecture on Penicillin

PENICILLIN therapy was explained by Dr. Frederick T. Schnatz, assistant professor of medicine, University of Buffalo School of Medicine, at a meeting of the Steuben County Medical Society on April 12 at the Baron Steuben Hotel, in Corning.

Dr. Schnatz's postgraduate instruction was presented cooperatively by the Medical Society of the State of New York and the State Health Department.

Pregnancy and the Rh Factor

PREGNANCY and the Rh factor were discussed by two members of the faculty of the Syracuse University College of Medicine at a meeting of the Madison County Medical Society, held on April 11 at the Hotel Oneida, Oneida.

This postgraduate instruction, presented by the Council Committee on Public Health and Education of the Medical Society of the State of New York, and the New York State Department of Health, was given by Dr. Raymond J. Pieri, professor of clinical obstetrics, and Dr. Robert C. Schwartz, instructor, clinical pediatrics, Syracuse.

Lecture on Rheumatic Fever

"RHEUMATIC Fever—Rheumatic Heart Disease" was discussed by Dr. J. G. Fred Hiss, professor of clinical medicine, Syracuse University College of Medicine.

The occasion was a meeting of the Broome County Medical Society, held on April 10 at the Binghamton City Hospital, Binghamton.

Dr. Hiss's instruction was presented through the cooperation of the Medical Society of the State of New York and the State Department of Health.



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Honor Roll

Medical Society of the State of New York

Member Physicians in the Armed Forces

(By County Societies)

Supplementary List*

Bronx County

Gruber, Farkas

Dutchess County

Rossman, I. Murray (Lt. Comdr.)

Erie County

Grace, Gerald W. (Lt.)

Kings County

Greenberg, Benjamin E. (Capt.)
Harris, Sidney (Lt.)

Nassau County

Rubin, Jack (Lt.)

New York County

Auten, Donald R.
Bauer, Hans G. (Lt.)
Cammer, Leonard (Lt. Comdr.)
Grishman, Arthur (Lt.)
Hartmann, Edward (Capt.)
Landsberg, Eva (Surgeon (R) PHS)
Levinsky, Aaron (Capt.)
Meyer, Nathan (Capt.)
Migden, Jacob I. (Lt.)

Onondaga County

Bruns, Hans J. (Lt.)

Otsego County

Chamberlain, J. Maxwell (Maj.)

Queens County

Frohman, Albert (Capt.)

Richmond County

Reback, Samuel (Maj.)

Sullivan County

Grund, Joseph (Capt.)

Westchester County

Catullo, Dante H. (Capt.)

* This list is the thirty-second supplement to the Honor Roll published in the December 15, 1942, issue. Other supplements appeared in the January 1, January 15, February 15, March 1, March 15, April 15, June 1, July 1, August 1, September 1, October 15, November 15, December 15, 1943, January 15, February 1, February 15, March 1, May 1, May 15, June 1, July 1, July 15, August 1, September 1, October 1, November 1, December 1, 1944, January 1, February 1, March 1, and April 1, 1945, issues.—*Editor*

GAMMA GLOBULIN DISTRIBUTED FREE IN NEW YORK CITY

Free distribution by the New York City Health Department of a newly developed measles preventive, gamma globulin, began on February 29. The new preparation, useful also for modification of measles, will be distributed by the department to residents of the city through their physicians and hospitals. It has been made available to the Health Department by the American Red Cross. The concentrated solution contains the antibody globulins. It has been developed as a by-product from pooled normal human plasma in the Red Cross blood collection program, Dr. Stebbins said.

Gamma globulin has proved effective in protecting children recently exposed to measles and will be supplied through physicians regardless of the patients' ability to pay, according to the commissioner.

"On the basis of studies made by the Health Department," he said, "it has been found that a single dose of gamma globulin, administered within eight days after exposure, will protect most children from developing measles for about three weeks. If a child is re-exposed after that period the dose may be repeated. The small percentage of injected children who do develop measles usually have mild cases which clear up quickly. Unsatisfactory reactions to the preparation are extremely rare."

Dr. Stebbins explained that gamma globulin was not being made available for administration to all children exposed to measles, but only to those who had not previously had measles and who had become exposed to the disease at some time during the previous eight days and who were in the following categories: all children under 5 years old, all children exposed in the wards of a hospital or institution to cases of measles, and all persons over 5 who were suffering from any disease in which the occurrence of measles might present a definite hazard.

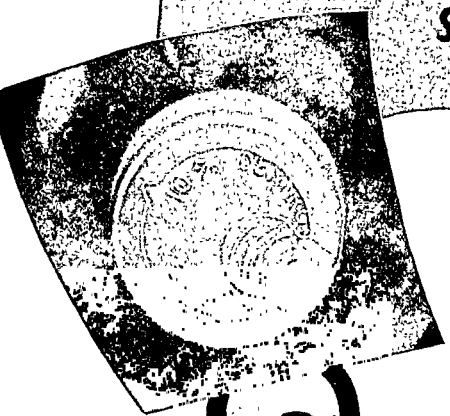
"It is important that these individuals be protected," said the commissioner, "since measles is most dangerous in children under 5, especially under 3, and may be a cause of death in very young children and in children who are suffering from certain other diseases. Obviously it is made available to hospitalized and institutionalized children to minimize the spread of the disease."

Gamma globulin will be available at the department's five district health centers which distribute other biologicals, at the five borough offices of the Health Department, and at the Bureau of Laboratories. In addition, the globulin will be supplied on demand to the four hundred drug stores in the city designated as consignment stations of the Department of Health.—*N.Y. Times, Feb. 26, 1945*

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Allegany	J. F. Glosser, Wellsville	E. B. Perry, Belfast	D. Grey, Belfast
Bronx	Moses H. Krakow, Bronx	G. B. Gilmore, Bronx	J. A. Landy, Bronx
Broome	F. G. Moore, Endicott	J. C. Zillhardt, Binghamton	L. J. Flanagan, Binghamton
Cattaraugus	M. G. Sheldon, Olean	W. R. Ames, Olean	W. R. Ames, Olean
Cayuga	C. E. Goodwin, Weedsport	L. W. Sincerbeaux, Auburn	L. H. Rothschild, Auburn
Chautauqua	R. M. Bruckheimer, Cassadaga	E. Bieber, Dunkirk	C. E. Hallenbeck, Dunkirk
Chemung	W. T. Boland, Elmira	E. D. Smith, Elmira	M. F. Butler, Elmira
Chenango	A. K. Benedict, Sherburne	J. H. Stewart, Norwich	J. H. Stewart, Norwich
Clinton	W. H. Ladue, Plattsburg	T. A. Rogers, Plattsburg	T. A. Rogers, Plattsburg
Columbia	J. W. Mambert, Hudson	L. J. Early, Hudson	L. J. Early, Hudson
Cortland	R. P. Carpenter, Cortland	W. A. Wall, Cortland	F. F. Sornberger, Cortland
Delaware	D. R. Corke, Hobart	F. R. Bates, Walton	F. R. Bates, Walton
Dutchess	D. A. Malven, Poughkeepsie	A. A. Rosenberg, Poughkeepsie	A. A. Rosenberg, Poughkeepsie
Erie	A. H. Aaron, Buffalo	L. W. Beamis, Buffalo	R. L. Scott, Buffalo
Essex	R. H. Gray, Westport	J. E. Glavin, Port Henry	J. E. Glavin, Port Henry
Franklin	J. N. Hayes, Saranac Lake	D. H. Van Dyke, Malone	D. H. Van Dyke, Malone
Fulton	M. Kennedy, Gloversville	L. Tremante, Gloversville	A. H. Sarno, Johnstown
Genesee	P. P. Welsh, Leroy	P. J. Di Natale, Batavia	P. J. Di Natale, Batavia
Greene	E. G. Mulbury, Windham	W. M. Rapp, Catskill	M. H. Atkinson, Catskill
Herkimer	B. J. Kelly, Frankfort	F. C. Sabin, Little Falls	A. L. Fagan, Herkimer
Jefferson	H. G. Farmer, Watertown	C. A. Prudhon, Watertown	L. E. Henderson, Watertown
Kings	J. Tenopyr, Brooklyn	B. M. Bernstein, Brooklyn	I. E. Siris, Brooklyn
Lewis	H. E. Chapin, Lowville	J. F. Rudmin, Port Leyden	J. F. Rudmin, Port Leyden
Livingston	H. J. Schneckenburger, Nunda	F. J. Hamilton, Hemlock	F. J. Hamilton, Hemlock
Madison	F. Ottaviano, Oneida	L. S. Preston, Oneida	G. S. Pixley, Canastota
Monroe	S. S. Bullen, Rochester	C. S. Lakeman, Rochester	J. L. Norris, Rochester
Montgomery	J. A. Dickson, Amsterdam	S. Partyka, Amsterdam	M. T. Woodhead, Amsterdam
Nassau	A. B. Johnson, Far Rockaway	E. K. Horton, Rockville Centre	E. K. Horton, Rockville Centre
New York	Kirby Dwight, New York	B. W. Hamilton, New York	F. Beekman, New York
Niagara	W. E. Mathews, Niagara Falls	C. M. Brent, Niagara Falls	G. C. Stoll, Niagara Falls
Oneida	A. F. Gaffney, Oriskany Falls	O. J. McKendree, Utica	H. D. MacFarland, Utica
Onondaga	P. K. Menzies, Syracuse	F. N. Marty, Syracuse	I. L. Ershler, Syracuse
Ontario	J. W. Karr, Clifton Springs	D. A. Eiseline, Shortsville	D. A. Eiseline, Shortsville
Orange	G. E. Kenny, Port Jervis	E. C. Waterbury, Newburgh	E. C. Waterbury, Newburgh
Orleans	L. G. Ogden, Holley	A. H. Snyder, Holley	A. H. Snyder, Holley
Oswego	H. F. McGovern, Fulton	W. F. Fivaz, Fulton	W. F. Fivaz, Fulton
Otsego	C. H. Peckham, Jr., Cooperstown	M. F. Murray, Cooperstown	J. M. Constantine, Oneonta
Putnam	G. H. Steacy, Lake Mahopac	Garrett W. Vink, Carmel	Garrett W. Vink, Carmel
Queens	E. C. Veprovsky, Flushing	E. A. Wolff, Forest Hills	A. A. Fischl, Long Island City
Rensselaer	J. F. Connor, Troy	F. J. Fagan, Troy	F. T. Cavanaugh, Troy
Richmond	M. S. Lloyd, New York	H. Friedel, St. George	H. Dangerfield, St. George
Rockland	E. W. O'Dowd, Tappan	R. L. Yeager, Pomona	M. R. Hopper, Nyack
St. Lawrence	J. P. Smith, Norwood	C. F. Prairie, Massena	L. T. McNulty, Potsdam
Saratoga	F. G. Eaton, Saratoga Springs	M. J. Magovern, Saratoga Springs	J. M. Lebowich, Saratoga Springs
Schenectady	D. G. Smith, Schenectady	N. H. Rust, Scotia	A. S. Grussner, Schenectady
Schoharie	R. G. S. Dougall, Cobleskill	D. R. Lyon, Middleburg	D. L. Best, Middleburg
Schuyler	W. C. Stewart, Watkins Glen	C. W. Schmidt, Montour Falls	C. W. Schmidt, Montour Falls
Seneca	B. Riemer, Romulus	F. W. Lester, Seneca Falls	F. W. Lester, Seneca Falls
Steuben	S. P. Koenemann, Avoca	R. J. Shafer, Corning	R. J. Shafer, Corning
Suffolk	R. W. Southerland, Brentwood	E. P. Kolb, Holtsville	G. A. Silliman, Sayville
Sullivan	R. S. Breakey, Monticello	D. S. Payne, Liberty	D. S. Payne, Liberty
Tioga	H. L. Knapp, Jr., Newark Valley	I. N. Peterson, Owego	I. N. Peterson, Owego
Tompkins	R. H. Broad, Ithaca	W. Wilson, Ithaca	W. Wilson, Ithaca
Ulster	M. B. Downer, Kingston	F. H. Voss, Kingston	C. B. Van Gaasbeek, Kingston
Warren	B. Diefendorf, Glens Falls	L. C. Huested, Glens Falls	L. C. Huested, Glens Falls
Washington	Z. V. D. Orton, Salem	D. M. Vickers, Cambridge	C. A. Prescott, Hudson Falls
Wayne	D. F. Johnson, Newark	T. C. Hobbie, Sodus	T. C. Hobbie, Sodus
Westchester	L. D. Redway, Ossining	H. E. McGarvey, Bronxville	W. A. Newlands, Tarrytown
Wyoming	A. Kosseff, Attica	G. W. Nairn, Warsaw	G. W. Nairn, Warsaw
Yates	A. W. Holmes, Penn Yan	R. F. Lewis, Penn Yan	R. F. Lewis, Penn Yan

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*Laryngoscope, Feb. 1935, Vol. XLV, No. 2—149-154.

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Necrology

George Louis Bartruff, M.D., of Brooklyn, died on March 11 at the age of 77. He had practiced medicine in the Bushwick section of Brooklyn for the past fifty years. He was graduated in 1893 from Bellevue Medical College.

Louis Fischer, M.D., of New York City, a specialist in children's diseases, died on April 9 at his home at the age of 80. He received his medical degree in 1884, and did postgraduate work in Berlin. Dr. Fischer was one of the first to use diphtheria antitoxin in the United States. He was an attending physician at Willard Parker, Riverside, and Sydenham hospitals. He was formerly a lecturer on the diseases of children at the New York Post-Graduate Hospital and also physician in charge of the Infantorium of the Heckscher Foundation.

John M. Flannery, M.D., of Buffalo, died on March 14 at the age of 65. He was graduated from the University of Buffalo School of Medicine in 1905. He was a member of the Erie County and state medical societies, and of the A.M.A.

Merton L. Ford, M.D., of Oneonta, died on March 10 *in Huntington Memorial Hospital, Pasadena,* California, where he had been a patient since February due to a fractured hip. He was 84 years old. Dr. Ford received his medical degree from New York University-Bellevue Medical College in 1886.

Thomas B. Fowler, M.D., of Springville, one of Erie County's oldest practicing physicians, died on April 3 at the age of 89. Dr. Fowler was graduated from Ohio Medical College in 1880.

Elias B. Guile, M.D., of Utica, a surgeon in central New York for a half century, died on March 29, at the age of 78, in Memorial Hospital, of which he had been a member of the staff for many years. Born in Copenhagen in 1866, Dr. Guile was educated at the Cazenovia Seminary and was graduated from the Homeopathic College, Cleveland, in 1888.

James T. Hardy, M.D., of Malverne, died on March 9 in Nassau Hospital at the age of 69. Dr. Hardy was a graduate of the New York Homeopathic Institute, class of 1900, and interned at Flower Hospital, Manhattan. He interrupted his education to serve in the Spanish-American War as a captain, and organized the Army Medical Facility at Chattanooga, Tennessee, during that war. He also later organized the fund-raising campaign for the building of Mary Immaculate Hospital, Jamaica. He was consulting physician and surgeon of the Bushwick, Lutheran, and Wade hospitals in Brooklyn, a member of the Kings County and state medical societies, and of the A.M.A.

Ivison D. Hoage, M.D., *of New York City, died* on January 23 at the age of 69. Dr. Hoage graduated from Long Island College of Medicine in 1903.

Megar Zackary Kara, M.D., of New York City, died on February 10 at the age of 56. Dr. Kara received his medical degree from the University of Istanbul in 1914, and was associate ophthalmologist at Stuyvesant Polyclinic Hospital.

Charles Franklin Kivlin, M.D., of Troy, surgeon and staff member of St. Peter's Hospital, Albany, died on March 21 of a heart ailment at the age of 69. Dr. Kivlin was a graduate of Albany Medical College, class of 1898. In addition to his practice in Troy, he was surgical consultant to the Hoosick Falls Medical Center, surgeon-in-chief and consultant to the St. Joseph's Maternity Hospital and St. Joseph's Infant Home, Troy, former surgeon-in-charge of the U.S. Employee's Compensation Commission for Troy, former physician to the Rensselaer County Welfare Home, and former medical adviser to the late Gov. Martin Glynn.

Francis J. Lawler, M.D., of Carthage, died on March 23 at the age of 53 from lymphatic leukemia. Dr. Lawler was the third member of his family to follow the medical profession. He was graduated from Albany Medical College in 1916, and interned at Glens Falls Hospital. During World War I he served in the Medical Reserve Corps as a first lieutenant, was later advanced to a captaincy and served for a year in an evacuation hospital. In 1940 he was appointed health officer of the Consolidated Health Board of Carthage and West Carthage, and at the start of World War II he organized and headed the Civilian Defense medical unit of Carthage, and taught Red Cross training classes. He was a member of the Jefferson County society and of the State Medical Society, and of the A. M. A.

Floyd Palmer, M.D., of Glens Falls, died at his home on March 28 at the age of 71. Dr. Palmer *received his medical degree from New York Uni*versity-Bellevue Medical College in 1899. He had been a practicing physician in Glens Falls since 1904, and was coroner of Warren County. Before going to Glens Falls he was on the staff of Mattewan State Hospital in Beacon. He was a member of the medical societies of Warren County and New York State, and of the American Medical Association.

Edward Augustine Quinlan, Sr., M.D., of Port Chester, died on March 22 at his home after a long illness. He was 69 years old. Dr. Quinlan came to Port Chester in 1898, following his graduation from Albany Medical College, and was in practice there forty-seven years. He was a member of the staff of the Ladies' Hospital, which later became the United Hospital of Port Chester, and at one time was in charge of the United Hospital Nurses' Training School.

Issac Reitzfeld, M.D., of Far Rockaway, Long Island, died on April 8 at St. Joseph's Hospital of Far Rockaway. He was 61 years old. Born in this city, Dr. Reitzfeld was graduated from New York University-Bellevue Hospital Medical College in 1904, and interned at Bellevue. He devoted himself to the study of orthopedics and traumatic surgery, until his enlistment in the Army Medical Corps in 1917. At the time of his death he was director of orthopedics at St. Joseph's Hospital and a consultant in orthopedic surgery at the Rockaway Beach Hospital, the Long Beach Hospital, and the Bronx Maternity Hospital. He was a member of *the Nassau County society and the Medical Society* of the State of New York, and of the A.M.A.

David J. Sibener, M.D., of Brooklyn, died on January 6 at the age of 43. Dr. Sibener was graduated from the Long Island College of Medicine in 1926. He was assistant ophthalmologist at the Israel-Zion Hospital and the Kings County Hospital. He was a member of the Kings County and state medical societies, and of the A.M.A.

Howard B. Swan, M.D., of Chestertown, died at his home on March 6 at the age of 52. A graduate of Albany Medical College, class of 1916, Dr. Swan practiced at Chestertown from 1919 until 1936, when he retired because of ill health. He served several terms as coroner of Warren County, and was a member of the medical societies of Warren County and the State of New York, and the A.M.A.

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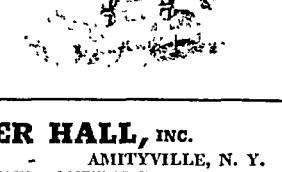
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THE SOVIET ACADEMY OF MEDICINE

The establishment of the Soviet Academy of Medicine in the midst of war is a story of scientific growth. Professor N. I [illegible] his article "The All-U[nion] mental Medicine and [illegible] latest issue of the *Ame[rican Review of Soviet Medi]cine*, describes the full organization of the Moscow and Leningrad Institutes with their numerous departments and laboratories.

The author gives an interesting account of the resourcefulness of the Institute's several thousand scientific workers after the outbreak of the war; how they continued their research investigations in some fields; how they solved some of the more immediate war problems of public-health protection, and how they often worked in the army hospitals [illegible] into a number of independent research institutes," writes Professor Propper-Grashchenkov. "The Academy of Medicine will be composed of twenty-[illegible] [illegible] *American Re-*[illegible] Use of Carbon Dioxide at Lowered Barometric Pressures" by V. M. Garasenko, who states that "Our chief problem here is not just to increase the hemoglobin oxygen saturation in the lung capillaries, but also to facilitate the dissociation of oxygen from hemoglobin in the tissue capillaries." Professor V. Strelkov deals [illegible] "The Function of the Eye in Aviation." The purpose of these latter experiments was to increase the efficiency of the pilots. [illegible] [illegible] treatment of [illegible] [illegible] estigations [illegible]

Woman's Auxiliary

To the Medical Society of the State of New York

County News

Nassau County. The regular monthly meeting of the Woman's Auxiliary to the Nassau County Medical Society was held on March 27 at 8:30 P.M. in the Nassau Hospital Auditorium in Mineola.

Mrs. Louis A. VanKleeck, president, conducted a short business meeting and then turned the meeting over to Mrs. Nathaniel Robin, president-elect, who introduced the guests for the evening, the Victory Players of the American Theatre Wing. They presented a play entitled "More Than Just Love," which dealt with the adjustment problems of the returning serviceman and his family and offered counsel for both.

Mrs. Eugenie Chapel later introduced the players and Henry Viscarty, their commentator. He described his work in army hospitals, particularly at the Walter Reed Hospital, Washington, D.C., where the problems of the patient are those of a man returning to civilian life after amputation of one or more limbs. Mr. Viscarty stressed the importance of the correct attitude on the part of the families.

Mrs. Helen M. Bullwinkle, county chairman of home nursing for the Red Cross, described the new simplified course of six lessons being offered in all communities.

Dr. Patricia Steen, of Hempstead, also spoke on the subject of adjustment for the serviceman on his return.

Refreshments were served by Mrs. John L. Neubert and her hospitality committee.

The next regular meeting was held April 18, in conjunction with the Nassau County Mental Hygiene Society at 8 P.M. at Hempstead High School. The theme was "The Returning Veteran." The main speakers were Mrs. Ethel Gensberg, assistant director of the Veterans Service Center in New York City, and Dr. Matthew Brody, psychiatrist of the Sperry Gyroscope Company. Mrs. Fred C. Hewlett, who is connected with parent-education work, and is now with the American Society for Research in Psychosomatic Medicine, was the program chairman.

Queens County. Plans for a luncheon and bridge at LaGuardia Field, May 9, under the auspices of the Queens County Auxiliary, were recently announced by Mrs. Meyeron Coe, of Queens Village, president.

Mrs. Herman Enselberg, of Astoria, is entertainment chairman, heading the planning committee for the affair. She will be assisted by Miss Lucy Lanza, also of Astoria, who is cochairman of entertainment.

District representatives in charge of ticket sales are: Jamaica: Mrs. John Scannell; Queens Village: Mrs. Sylvester Catalanello; Richmond Hill: Mrs. William Flanagan; Forest Hills: Mrs. Miller Sanders; Ridgewood: Mrs. Henry Eichacker; Flushing: Mrs. J. Gibson Hill; Jackson Heights: Mrs. William Blaso; Long Island City: Mrs. Patrick De Canio.

Schenectady County. Mrs. Luther H. Kice, of Garden City, a member of the national legislation committee of the Auxiliary to the American Medical Association, spoke on "What Is New Among the Auxiliaries to the American Medical Association" at the luncheon meeting of the auxiliary to the Schenectady County Medical Society which was held in March at the Mohawk Golf Club.

The meeting was arranged by the legislation committee of the Schenectady County Auxiliary, which includes Mrs. F. Leslie Sullivan, chairman, assisted by Mrs. James Blake, Mrs. Charles Rourke, Mrs. Alfred Grussner, Mrs. Frank Furlong, Mrs. Carl Runge, and Mrs. Herman Galster.

Among the honored guests were Mrs. Edward A. Griffin, of Brooklyn, and the presidents of neighboring county auxiliaries, Mrs. R. R. Wytral, of Montgomery County, Mrs. James Bucci, of Albany County, Mrs. John Noonan, of Rensselaer County, and Mrs. I. T. Bullard, of Saratoga County.

Also present as guests of the auxiliary were Dr. D. Glen Smith, president of the Schenectady County Medical Society, and Dr. Alfred Grussner, chairman of the advisory committee.

PLASMA AND TISSUE PROTEINS APPEAR INTERCHANGEABLE

Plasma and tissue proteins should no longer be considered as distinct entities. Evidence cited editorially in the Winter, 1945, issue of the *Journal of Parenteral Therapy* strongly suggests that there is a continuous and rapid interchange—or traffic—between them.

Under certain conditions of inadequate or restricted protein intake, 1 Gm. of plasma protein (albumin) is lost for every 25 to 30 Gm. of tissue protein. The same ratio holds true when the attempt is made to replace plasma protein and tissue protein by restoring an adequate protein intake. In patients with serious protein depletion, owing primarily to malnutrition, it is highly impractical to make use of human plasma or serum transfusion.—*Minn. Med., Dec., 1944*

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CHEMISTS FIND GELATIN FOR USE AS BLOOD PLASMA

Scientists at the California Institute of Technology have developed a substitute for blood plasma from gelatin, according to Dr Dan H Campbell, professor of immunologic chemistry

Disclosing the results of three years' work, Dr [illegible]

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Professors Campbell and Linus Pauling headed a group of chemists who developed the gelatin solution under contract with the Office of Scientific Research and Development and the Committee on Medical Research —*N.Y. Times, Feb. 14, 1945*

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From Our Members in Service

France, 8 March, 1945

To the Editor:

As you surmised from the change of address, I have been transferred from the Station Hospital. That was my original assignment in the Army and lasted only three months. I was then placed on temporary duty with an observation squadron, on antisubmarine patrol off the southeast coast, during which period I accumulated a good bit of flying time.

I was fortunate enough then to obtain an assignment to the School of Aviation Medicine in Texas. After completing the course, I was assigned as squadron surgeon to a fighter squadron on the East Coast. After three months with this squadron I was promoted to a captain and assigned as group surgeon to a newly activated fighter group.

It was a wonderful experience to watch the fighter group grow and develop from a clumsy, colicky infant to a young, strong, and confident though inexperienced warrior. Just prior to our shipment overseas I was promoted to a majority.

The group quickly gained experience in combat and justified its confidence throughout its more than a year of combat operations. Shortly after arriving in the theater of operations I received the wings of a flight surgeon.

Shortly after D-day we arrived in Normandy and had the unique experience of operating from an airfield under enemy shellfire and bombing. This, however, was more of an annoyance than a real threat. It cost the enemy more than it did us.

We then followed the armies across France to our present location. My airbase aid station is located in a French farm house, and my office in the attached cow barn. Amazing how comfortable one can be under primitive conditions. I sometimes feel sorry for the poor folks back at home, worrying about coal, butter, meat rationing, etc. Well, that is life for you. Of course, we do have a few inconveniences such as mud, no tub baths, and nonflushing sanitary conveniences, plus an occasional definitely unfriendly gesture on the part of the Jerries. Such people . . . . but, of course, you couldn't expect anything better since they have associated with such nasty people, like Schickelgruber, Goering, and Goebbels.

Seriously, however, we all feel that our pilots are the best pilots in the best group in the best command in the best air force supporting the best army of the best nation in the world. How is that for morale?

STANLEY F. OGORZALY

INTERN TRAINING

Two major problems which face medicine in the postwar period are concerned with postgraduate medical training for the returning physician veterans and the training of interns. Among the former there will be many who desire to complete hospital training, particularly in the specialties, and with others the main interest will center in refresher courses in fields which of necessity have been neglected during the war. As far as these two groups are concerned it is obvious that the medical schools and the associated teaching hospitals can offer but relatively limited aid and that for the most part the burden of any definite program must rest upon the medical profession itself. Hospital training as we now know it must be carefully surveyed with a view to greatly increasing its usefulness, and those who are in positions of its responsibility must become aware of their obligations and opportunities.

In our own State, hospitals have for many years offered intern training but for some time previous to the war it was quite evident that for many hospitals there existed a real shortage of well-qualified applicants for such training. That this shortage has not become one of major significance during the war is largely due to the excellent functioning of the State Office of Procurement and Assignment.

It seems unquestionable that if in the future we are to maintain an adequate and useful intern training program in Connecticut the effort must be a carefully coordinated one and one in which this type of postgraduate training will be attractive to graduating students of good medical schools. The suggestion has been made that a permanent committee consisting of representatives of hospital administration and members of the profession could serve as a useful body to consider these problems and other pertinent hospital and professional relation ships.

Dr. E. M. MacEwen, president of the Association of American Medical Colleges, speaking of the internship, said recently, "Few, if any, of us are satisfied with the educational program offered graduates in many fully approved hospitals. The internship must be a part of the physician's preliminary education, not primarily a hospital service. Educational requirements should be added to the present service standards required for approval. So far as I know, no responsible group has ever formulated such a program.

Even our best hospitals are so definitely centered on the training of specialists that the intern year differs little from the senior year except for freedom from formal class work. We hear on all sides the demand for more general practitioners—if this demand is to be satisfied, we must develop a number of two-year rotating internships with a teaching and service program keyed to the needs of this type of practice." It is certain that most hospitals will welcome a carefully considered program for future intern training and it is hoped that in our own State the time will not be long before something constructive can be offered to those who are now responsible for this important aspect of medical education.—*Conn. State M. J., Jan., 1945*

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Books

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RECEIVED

Clinical Heart Disease. By Samuel A. Levine, M.D. Third edition, revised. Octavo of 462 pages, illustrated. Philadelphia, W. B. Saunders Co., 1945. Cloth, $6.00.

Handbook of Industrial Psychology. By May Smith, D.Sc. Octavo of 304 pages. New York, Philosophical Library, Inc., 1944. Cloth, $5.00.

Medico-Legal Blood Group Determination. Theory, Technique, Practice. By David Harley, M.D. Octavo of 119 pages, illustrated. New York, Grune & Stratton, 1944. Cloth, $3.50.

The Chemistry and Pharmacy of Vegetable Drugs. Dealing With the Derivation and Properties of All the Principal Vegetable Drugs. By Noel L. Allport. Octavo of 252 pages, illustrated. Brooklyn, Chemical Publishing Co., 1944. Cloth, $4.75.

Arterial Hypertension. Its Diagnosis and Treatment. By Irvine H. Page, M.D., and Arthur Curtis Corcoran, M.D. Octavo of 352 pages, illustrated. Chicago, Year Book Publishers, 1945. Cloth, $3.75.

Casualty Work for Advanced First-Aid Students. By A. W. MacQuarrie, M.B. 32mo of 231 pages illustrated. Edinburgh, E. & S. Livingstone, Ltd. (Philadelphia, The Peter Reilly Co.), 1944. Cloth, $1.80.

Familial Susceptibility to Tuberculosis. Its Importance as a Public Health Problem. By Ruth Rice Puffer, D.P.H. Octavo of 106 pages, illustrated. Cambridge, Harvard University Press, 1944. Cloth, $2.00.

Internal Medicine. Its Theory and Practice. In Contributions by American Authors. Edited by John H. Musser, M.D. Fourth edition, revised. Quarto of 1,518 pages, illustrated. Philadelphia, Lea & Febiger, 1945. Cloth, $10.

X-Ray Examination of the Stomach. A Description of the Roentgenologic Anatomy, Physiology, and Pathology of the Esophagus, Stomach, and Duodenum. By Frederic E. Templeton, M.D. Octavo of 516 pages, illustrated. Chicago, University of Chicago Press, 1944. Cloth, $10.

REVIEWED

The Wounded Get Back. By Albert Q. Maisel. Octavo of 230 pages. New York, Harcourt, Brace and Co., 1943, 1944. Cloth, $2.50.

This interesting and instructive description of what happened to the sick and wounded in the South Pacific area of combat action was written by a layman after five months' experience as an accredited representative of the Navy's Medical Department. There is a gracious foreword by Ross T. McIntire, the Surgeon General of the Navy. The lay reader will find ample thrills in many of the pages of this book and medicos will be justified in a feeling of satisfaction and pride in having participated in a job, not always easy, but always mighty important.

JOSEPH RAPHAEL

On the Influence of Trades, Professions, and Occupations in the United States, in the Production of Disease. By Benjamin W. McCready, M.D. (1837). Introd. by Genevieve Miller. Duodecimo of 128 pages. Baltimore, Johns Hopkins Press, 1943. Cloth, $1.75.

Genevieve Miller deserves our gratitude for having resurrected this important early American medical book and for her introductory essay.

This study was originally published as a prize essay in the *Transactions of the Medical Society of the State of New York*, 1837, and was written by the gifted Benjamin McCready. McCready was only twenty-three at the time, but had already given promise of the distinguished career as physician and humanitarian which was to follow.

It is unfortunate that the essay was published in so obscure a journal, because it was an excellent study of industrial medicine which can be read with profit by all workers in the field today. Wider recognition might have brought reforms which were to wait for a century.

MILTON PLOTZ

Physiology of the Nervous System. By John Farquhar Fulton. Second edition. Octavo of 614 pages, illustrated. New York, Oxford University Press, 1943. Cloth, $9.00.

The second edition of Professor Fulton's *Physiology of the Nervous System* gives a good account of all the relevant literature up to 1943. Of necessity some sections are curtailed; for example, the chapter on the receptors, although giving a description of their histology, does not give enough detail of their physiology. The section on reflexes is complete. The importance of the hypothalamus is stressed.

The invitation to specialists to revise certain chapters adds to the value of the book; for instance, the chapters on the autonomic nervous system and on conditioned reflexes.

Chemical mediation of nerve impulses at the synapses by acetylcholine receives adequate treatment. A large amount of evidence is adduced in its favor.

An extensive bibliography is included at the end of the book.

N. B. DREYER

Vitamins and Hormones. Advances in Research and Applications. Vol. I. Edited by Robert S. Harris and Kenneth V. Thimann. Octavo of 452 pages. New York, Academic Press, 1943. Cloth, $6.50.

Many books have been written on the subject of vitamins and hormones; in the reviewer's opinion

none have derived more from basic authoritative source than the present compilers. The book is a series of monographs by outstanding authorities. For example, Best and Lucas have written an excellent treatise on choline metabolism and its ramifications. No metabolist could afford not to read this monograph, which goes very thoroughly into the biochemistry of choline and its relatives.

Jolliffe and Most have appraised nutritional states from all angles. Loofbourow has covered identification and assay through spectrophotometry, colorimetry, and spectroscopy. The relationship of vitamins and amino acids is covered by Mitchell. Intermediary metabolism of the sex steroids is discussed by Pincus and Pearlman. In addition, George Wald, Roger Williams, Richard Hall, George Minot, Maurice Strauss, T. Reichstein, and Shoppee have written excellent treatises on their respective subjects.

For the internist who desires to go directly to the source this book is unsurpassed.

GEORGE E ANDERSON

Behind the Universe. A Doctor's Religion. By Louis Berman, M D. Octavo of 303 pages New York, Harper & Brothers, 1943. Cloth, $2.75.

This is the sixth book published by the well-known physician who has shown considerable interest in biology, chemistry, heredity, and endocrinology. The present volume is his opinion of what lies behind the world of surface experience. He attempts to correlate and synthesize religion with science, and to integrate the relationship of the individual to his species and to the cosmic forces of the universe.

The book will afford much food for thought and reflection. It may not be easy reading, but will prove valuable and interesting to those who are philosophically minded.

IRVING J. SANDS

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revised. [illegible]
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This manual presents the more important qualitative and quantitative chemical aspects of cell constituents, of cell activities, and of the composi- [illegible] are tests for carbohydrates, fats, and proteins, as well as estimations of amino acids and cholesterol in the blood. There are chapters on estimation of pH by colorimetric and electrometric methods, [illegible] and intestinal of vitamins, pyridoxine, and of such hormones as adrenalin, androgens, and estrogens, are given.

E. H. NIDISH

The Medical Clinics of North America. Mayo Clinic Number. July, 1944. Octavo. Philadelphia, W. B. Saunders Co., 1944. Published bimonthly (six numbers a year). Cloth, $16 net; paper, $12 net.

The Mayo Clinic issue of the *Medical Clinics of North America* includes a symposium on chemotherapy. Most of this material, while instructive, has been covered elsewhere. About half this volume, however, is devoted to a series of clinics on other subjects, almost all excellent, among which the papers by Rushton on sleep paralysis and that by Montgomery on moles are outstanding.

MILTON PLOTZ

Gynecological and Obstetrical Urology. By Houston S. Everett, M.D. Octavo of 517 pages, illustrated. Baltimore, Williams & Wilkins Co., 1944. Cloth, $6.00.

This is a textbook on urology of interest to the [illegible] tion with the great urologic group there, Everett is peculiarly well fitted for his task. The gynecologist will be delighted with the full chapter on direct cystoscopy with the Kelly cystoscope, the first time this technic has been readily available.

CHARLES A. GORDON

A Textbook of Pathology. Pathologic Anatomy in Its Relation to the Causes, Pathogenesis, and Clinical Manifestations of Disease. By Robert Allan Moore. Octavo of 1,338 pages, illustrated. Philadelphia, W. B. Saunders Co., 1944. Cloth, $10.

This textbook is another addition to the excellent group of textbooks of pathology that have been published in recent years. The arrangement of the book is different and, in the reviewer's opinion, a step in the right direction. It groups the various diseases, wherever possible, under the causes of the diseases or under the physiologic derangements rather than under anatomic types. When the causes are unknown the disease is listed under the organs or systems involved.

The paper is good and the type is clear. The illustrations are plentiful, well chosen, and com- [illegible] information on the subject.

The book should be of value not only to students of medicine but also to general practitioners.

DAVID M. GRAYZEL

Neurology of the Eye, Ear, Nose, and Throat. By E. A. Spiegel, M.D., and I. Sommer, M.D. Octavo of 667 pages, illustrated. New York, Grune & Stratton, 1944. Cloth, $7.50.

This book deals with the anatomy, physiology, and pathologic disturbances of the neural mechanisms related to the eye, ear, nose, and throat. It is the result of a series of postgraduate lectures given over the last twenty-five years in the University of Vienna, Temple University, and in other medical centers in this country. Formerly these lectures were published in a volume called *Oto-Ophthalmo-Neurologie.*

The present volume covers not only the basic principles discussed in the first European edition but the experiences of at least a decade of work in this country as well.

The [illegible] present [illegible] raphy [illegible] twenty references to books and articles on special phases of the subject. It is an excellent book and one that should have a great appeal to neurologists,

otologists, laryngologists, and ophthalmologists. It is highly recommended.

IRVING J. SANDS

The Diseases of the Endocrine Glands. By Hermann Zondek. Fourth (second English) edition. Translated by Carl Prausnitz Giles, M.D. Octavo of 496 pages, illustrated. Baltimore, Williams & Wilkins Co., 1944. Cloth, $11.

Zondek's *Diseases of the Endocrine Glands*, in its original German version, published in 1926, was one of the outstanding books on the subject. It was so far ahead of its time that it did not receive the full recognition which it truly deserved. The recent second English translation is augmented by numerous additions to keep up with the rapid progress of modern endocrinology, a task almost too difficult to accomplish. Inevitably, the unity of the original work had to suffer in the course of the patching-up process. One can only desire that Dr. Zondek will find time and opportunity to write an entirely new book on the subject, as excellent as the early edition. Notwithstanding these critical comments, the new edition is still one of the most valuable treatises on endocrinology, especially for the clinician whose interest centers upon diagnosis and treatment rather than on minor details of theoretic significance.

MAX A. GOLDZIEHER

Simplified Diabetic Management. By Joseph T. Beardwood, Jr., M.D., and Herbert T. Kelly, M.D. Fourth edition. Duodecimo of 172 pages, illustrated. Philadelphia, J. B. Lippincott Co., 1944. Cloth, $1.50.

The fourth edition of this manual brings the latest material on diabetic treatment up to date for the layman.

In this edition, as in those past, the authors sponsor a food unit scheme called the "line-ration scheme." According to this line-ration scheme, Unit A represents 5 Gm. of carbohydrates and 1 Gm. of protein, equal to 24 calories. Unit B contains 5 Gm. of protein and 10 Gm. of fat, equal to 110 calories. The author gives a list of the foods and the various unit combinations.

These mathematic calculations are introduced to the diabetic in the effort of simplification; unfortunately, it only tends to confuse the patient. Even very intelligent patients like simplicity in figures. Equations may be good for students, but how many graduates use them or care to use them? If charts or schemes had any popularity there would be very few patients left in clinics. Experience shows that once a diet sheet is given with a simple list of foods and their percentages for the patient's own choice, within a short time the patient is off the diet.

This book might have a greater appeal if the "line-ration" scheme were omitted.

MORRIS ANT

Operations of General Surgery. By Thomas G. Orr, M.D. Quarto of 723 pages, illustrated. Philadelphia, W. B. Saunders Co., 1944. Cloth, $10.

This is an excellent textbook which describes most of the standard procedures used in the various fields of surgery. The operative procedures are well explained, and the illustrations are unusually good. The book will be of great value to the experienced surgeon who needs reference to operations which he does only occasionally, and to the beginner in surgery, who will do well to familiarize himself with most of the procedures described.

EDWARD P. DUNN

The Radiology of Bones and Joints. By James F. Brailsford, M.D. Third edition. Octavo of 440 pages, illustrated. Baltimore, Williams & Wilkins Co., 1944. Cloth, $12.

The third edition of this book follows its predecessor by ten years. It has been brought up to date and, as formerly, is a generalized study of the x-ray appearance of the skeleto-articular systems. There is some difficulty in following the exhibits, which often are removed from the text, but for those interested in radiology it is a rather complete compendium of the subject with an excellent bibliography.

It is of value as a textbook and a ready reference to the orthopedist as well as to the roentgenologist. For those in industrial practice, it should also prove of assistance.

MILTON G. WASCH

Artificial Pneumothorax in Pulmonary Tuberculosis. Including Its Relationship to the Broader Aspects of Collapse Therapy. By T. N. Rafferty, M.D. Octavo of 192 pages, illustrated. New York, Grune & Stratton, 1944. Cloth, $4.00.

In this book Dr. Rafferty has presented us with an interesting if not controversial discussion of the present-day status of artificial pneumothorax as employed in pulmonary tuberculosis.

His thesis appears to be that pneumothorax proves to be effective in only about fifty per cent of the cases in which it is tried, and that even when effective it is likely to be productive of such complications (spontaneous pneumothorax, empyema, etc.) as to render its employment of doubtful value. In short, one gains the impression that the author presents more of an indictment than an endorsement of the measure. This attitude may be partly explained on the ground that Dr. Rafferty approaches his subject from the viewpoint of a trained surgeon rather than from that of a student who has devoted himself to many years of study and contemplation of the broader subject of tuberculosis. The book serves an excellent purpose, however, in stimulating thought on the subject and bringing about a reorientation of the viewpoint of all of us interested in the treatment of pulmonary tuberculosis.

FOSTER MURRAY

The South African Frog (*Xenopus Laevis*) in Pregnancy Diagnosis. A Research Bulletin. By Abner I. Weisman, M.D., and Christopher W. Coates. Octavo of 134 pages, illustrated. New York, New York Biologic Research Foundation, 1944.

In this little volume the authors give all the information available on the South African frog, *Xenopus Laevis*, and an extensive bibliography. This covers not only the frog's value in pregnancy diagnosis, but also its discovery, history, anatomy, physiology, and the methods of breeding and housing it. Accuracy of pregnancy diagnosis is emphasized, particularly in the more obscure cases of ectopic pregnancy and in situations in which time is of great importance.

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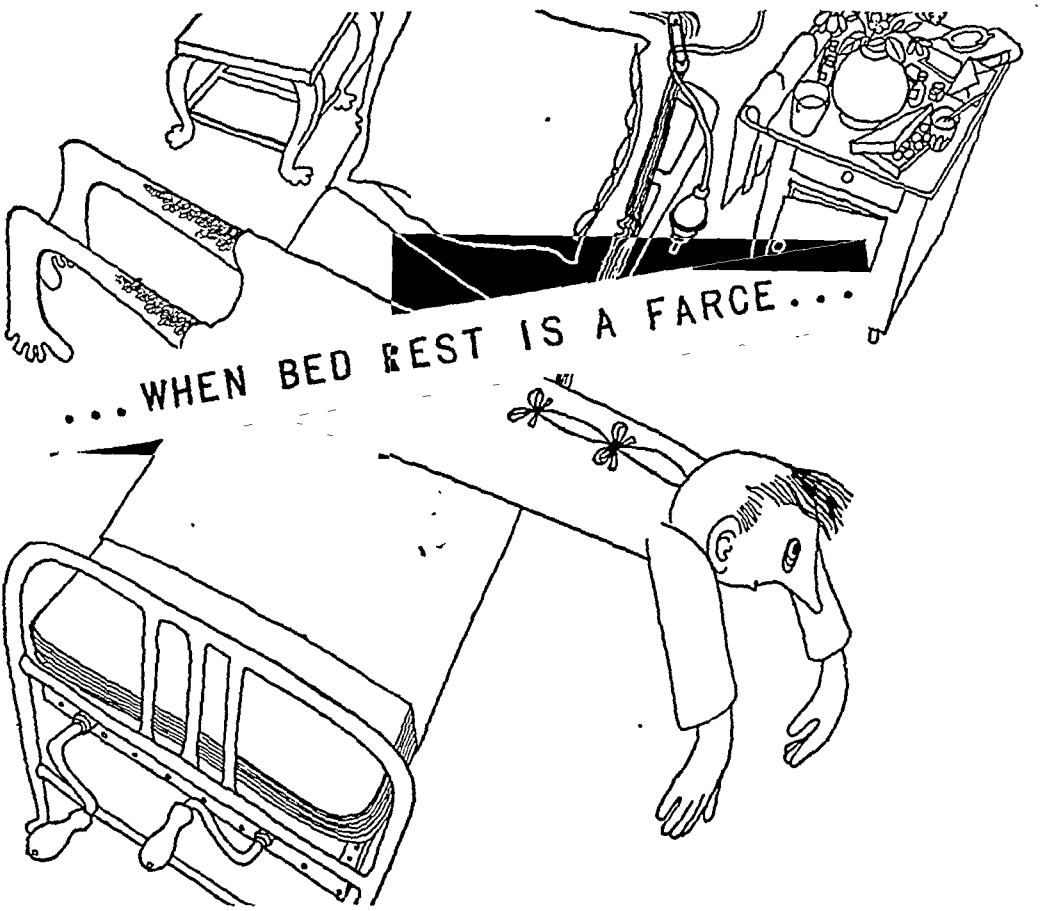
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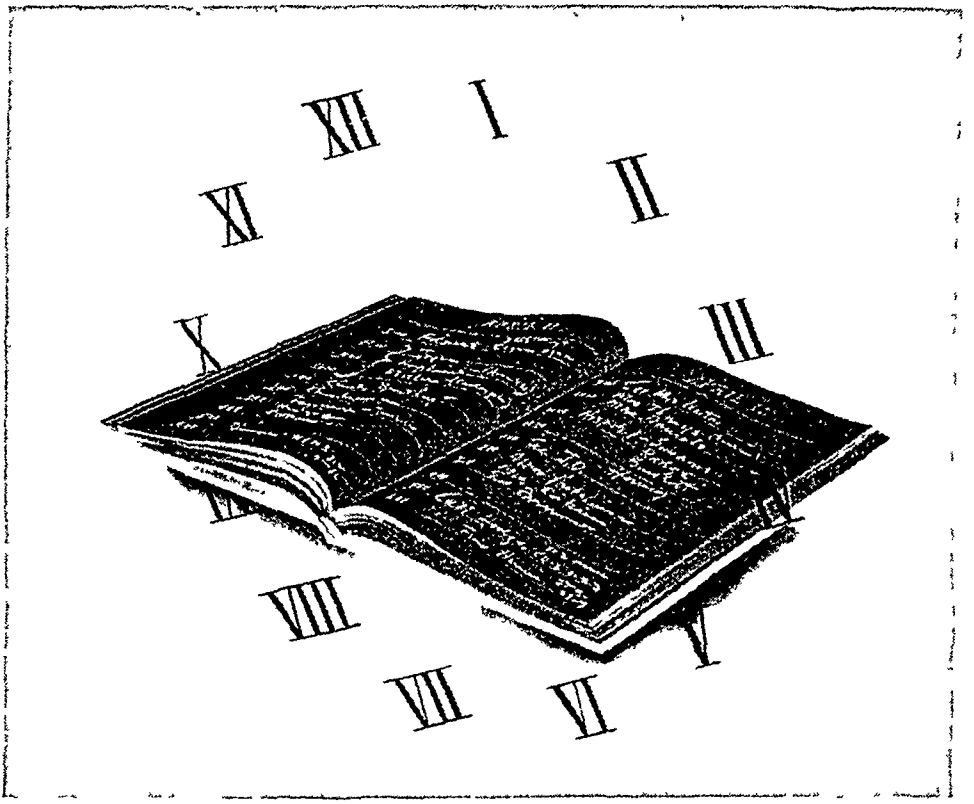
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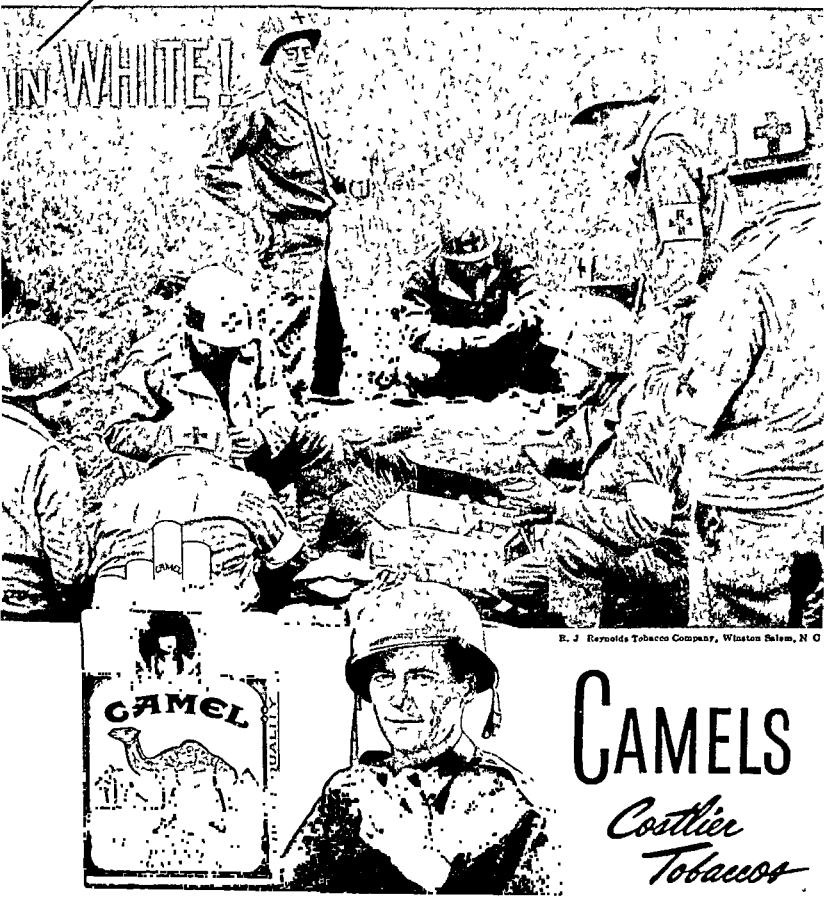


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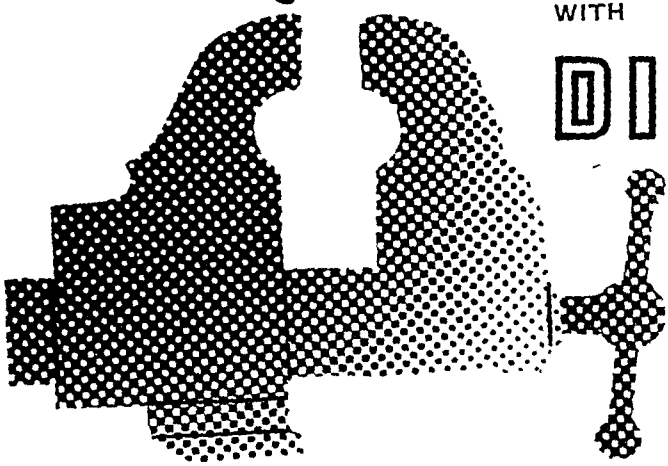
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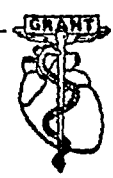


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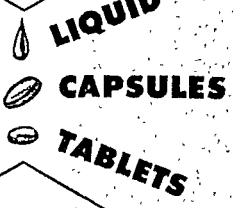


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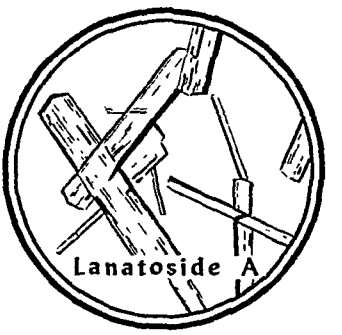
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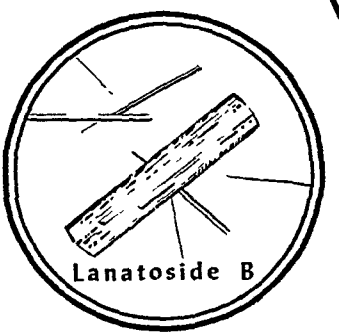
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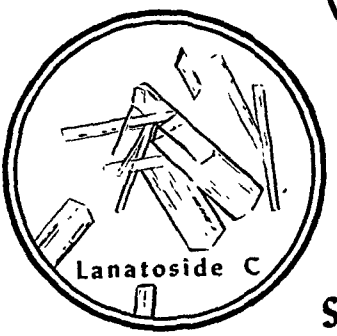
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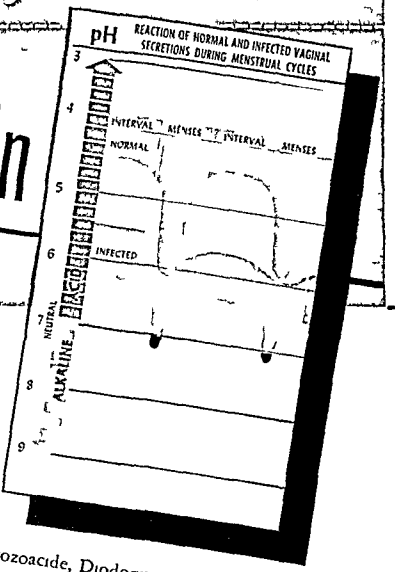


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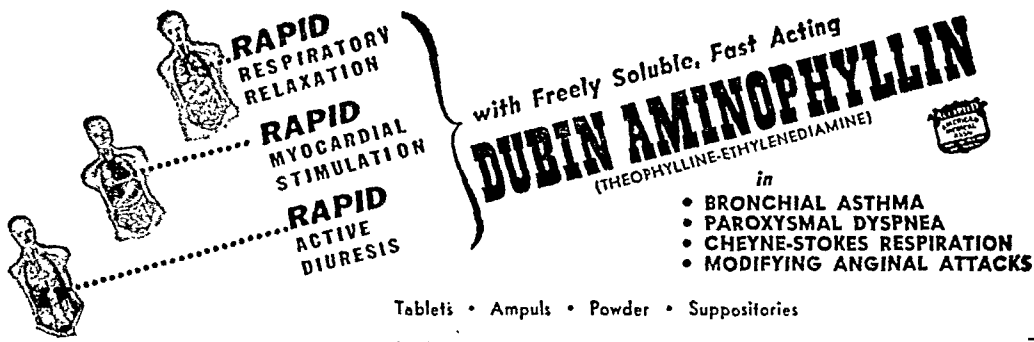
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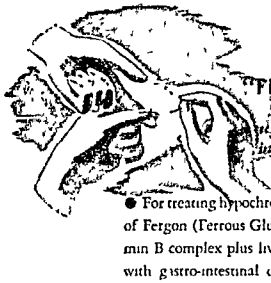
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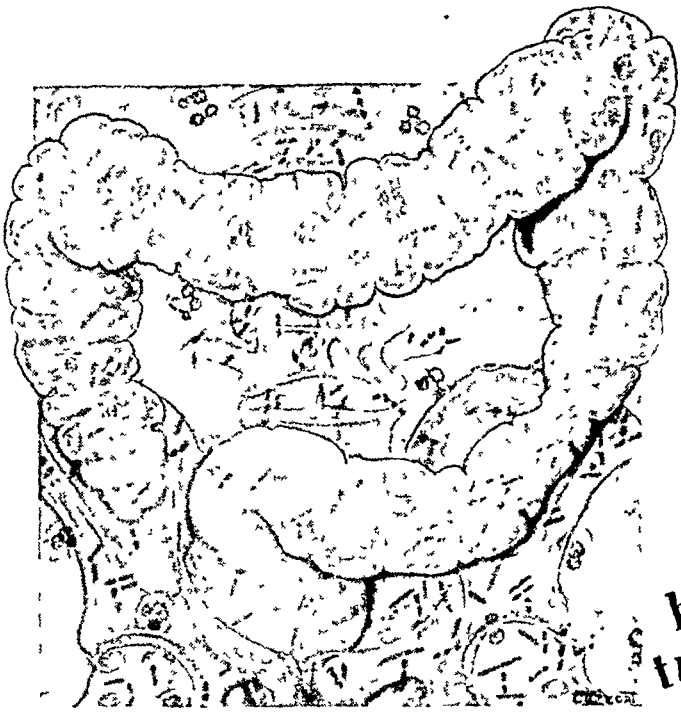
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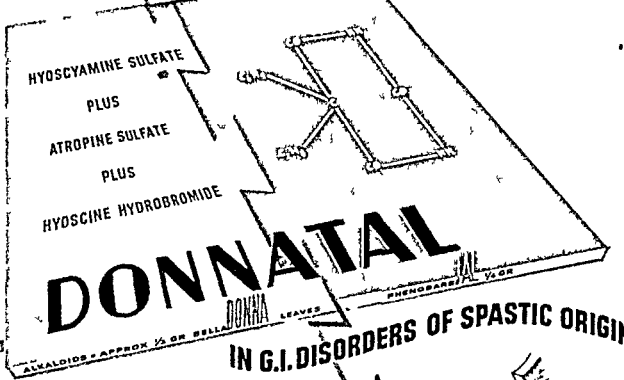
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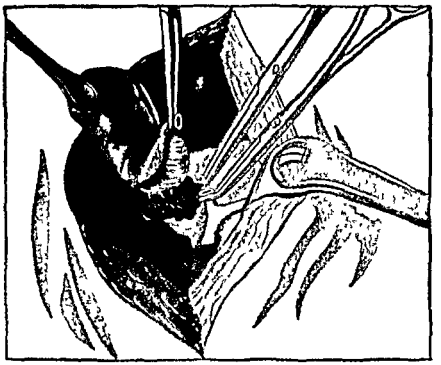
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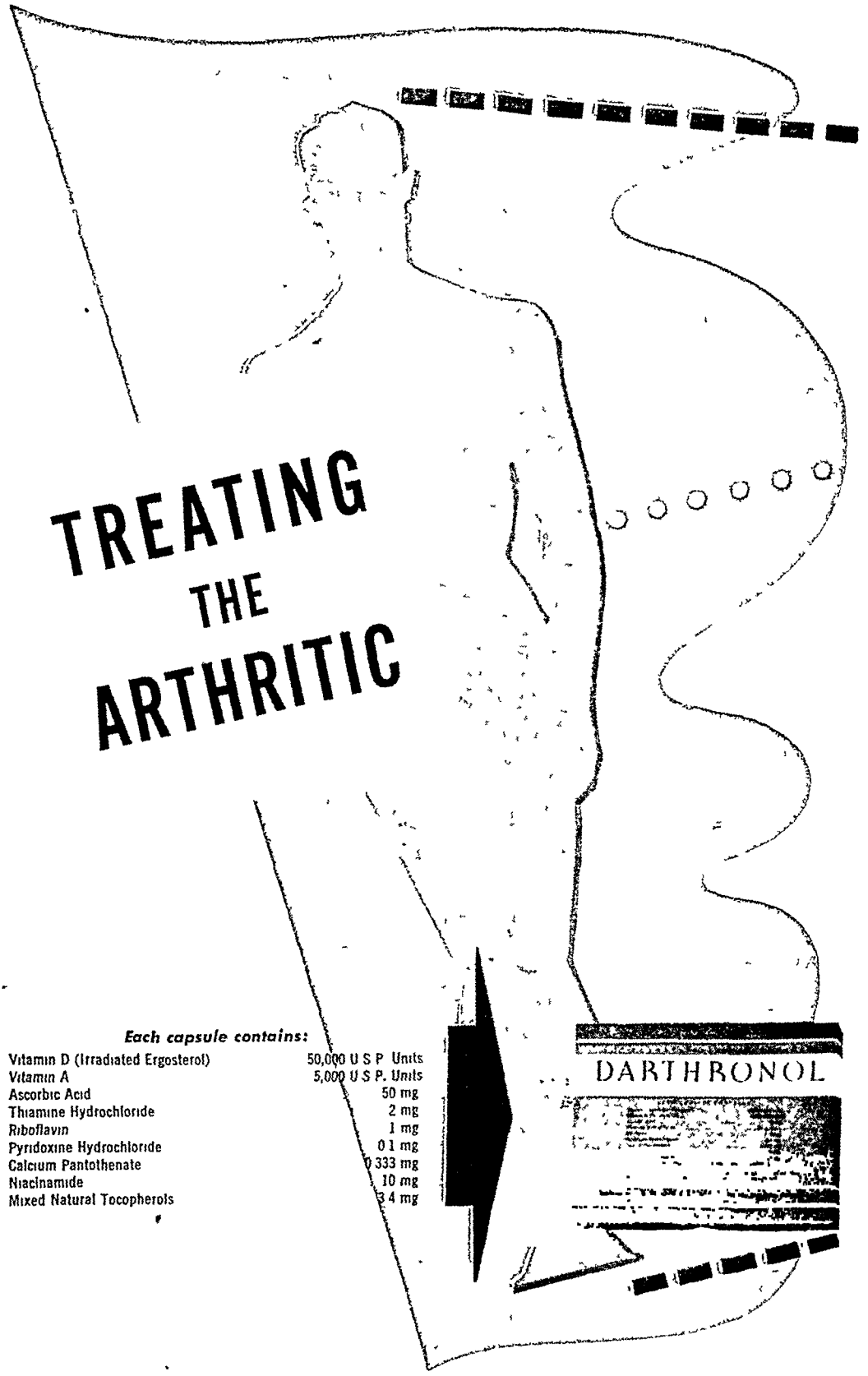
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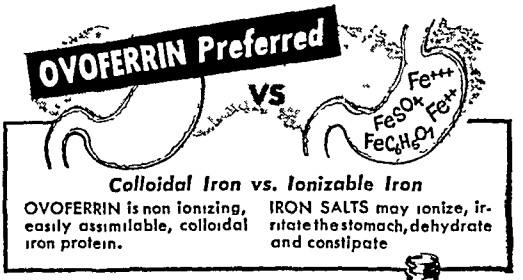
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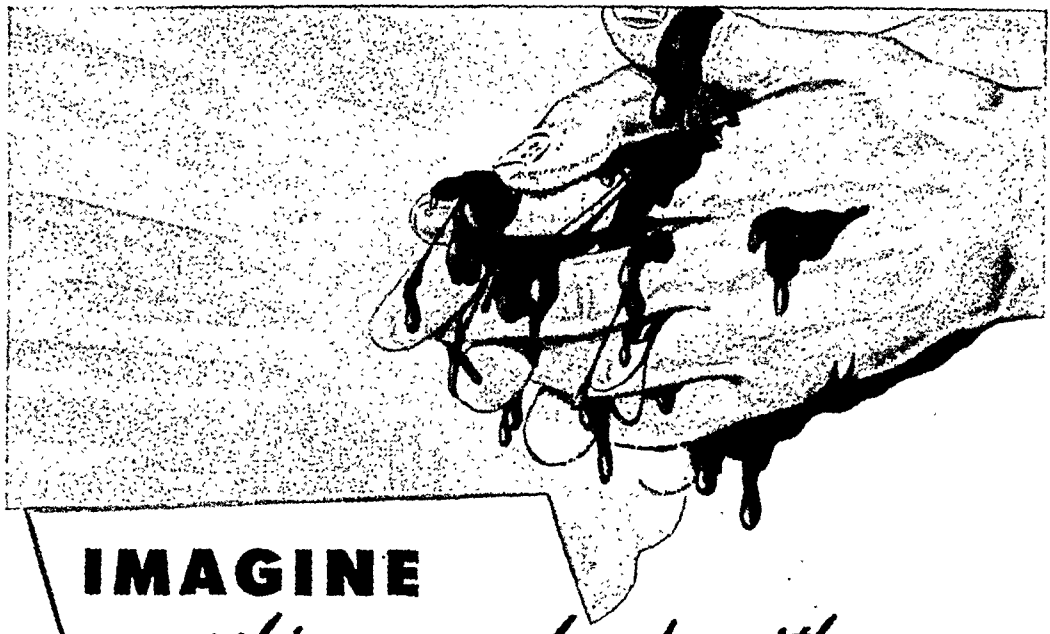
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Rambar, A C, Hardy, L M and Fishbein, W I J Ped 23 31-38 (July) 1943
Wolf, I J J Ped, 22 707-718 (June) 1943
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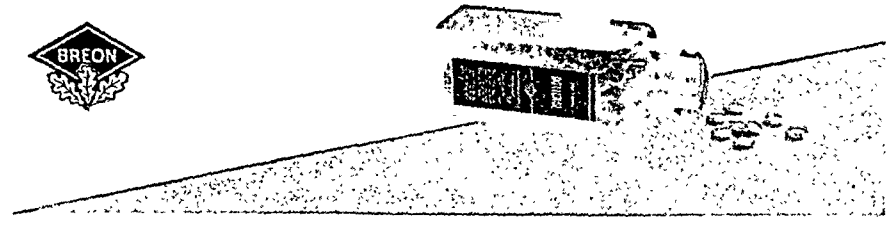
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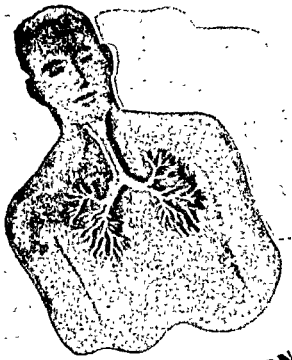
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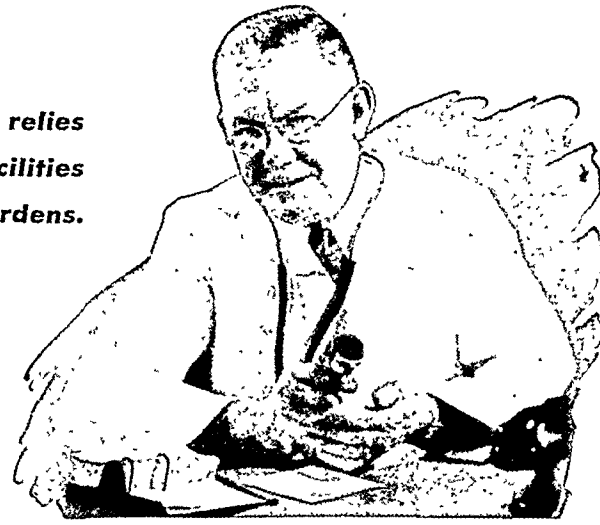
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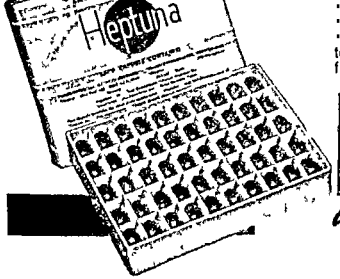
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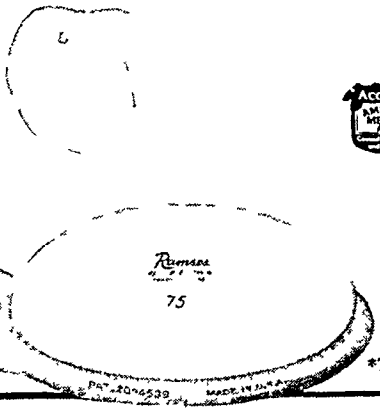


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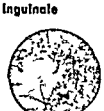
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2. Jean Romano, Amer. Jour. Med. Science, 1940, I, No. 5

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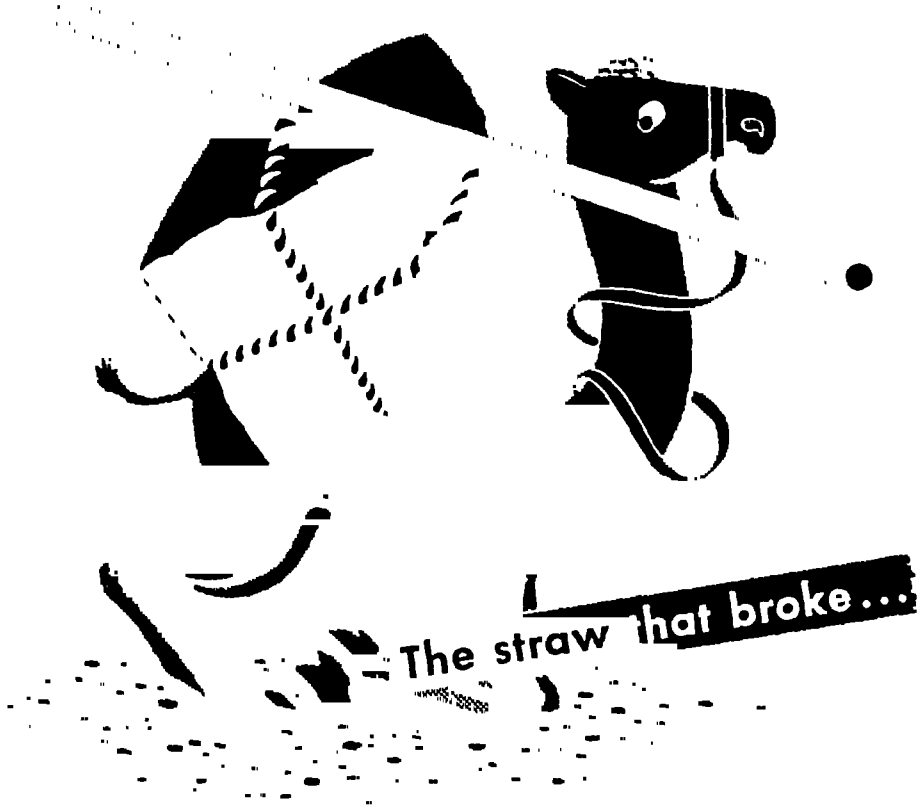
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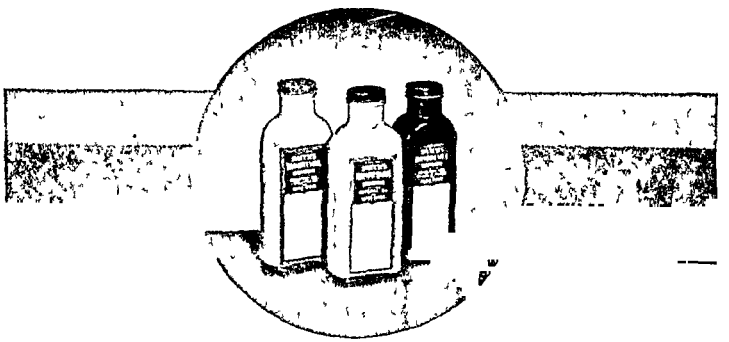
1. Bull. N. Y. Acad. Med. 18:497 (Aug.) 1942

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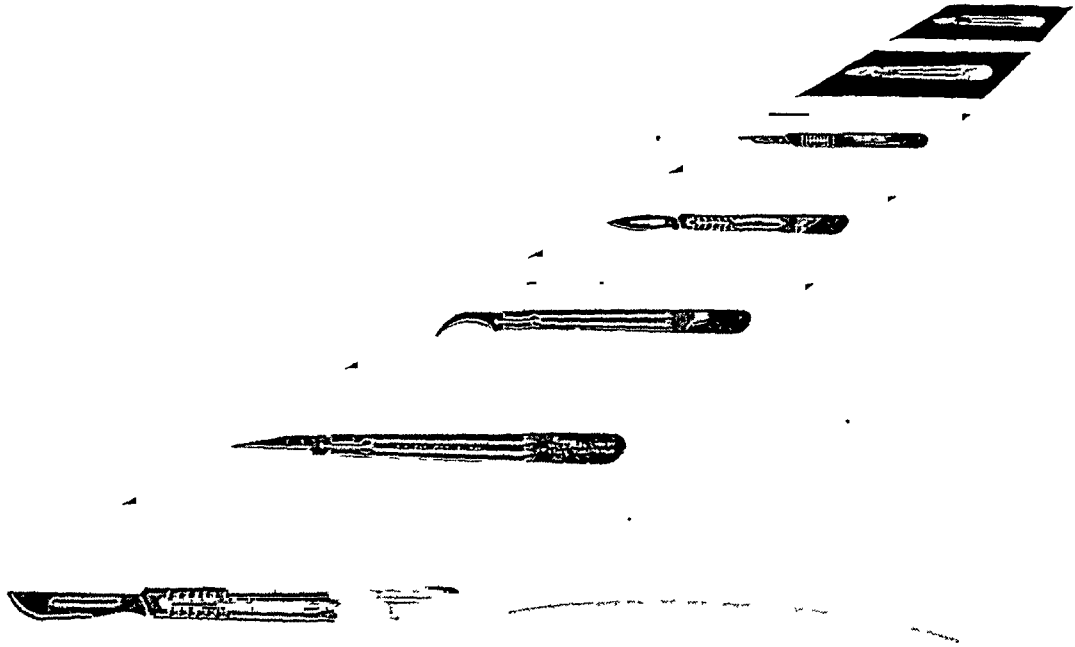
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VOLUME 45 MAY 15, 1945 NUMBER 10

Editorial

Your Assistance is Imperative

Every physician, at one time or another, must choose between the putative weal of his patient and the furtherance of the public interest. Especially is this true when the communicable diseases are concerned.

The control of venereal disease, for instance, must include, to be effective, the identification and treatment of persons who have been in sexual contact with persons with known cases of communicable venereal disease and thus have received or transmitted their infections. No physician would disagree with this point of view.

The great burden of venereal disease therapy rests upon the individual physician, especially in large areas of rural populations. The responsibility for venereal disease control, however, rests in the state and local health departments. These are confronted with a problem which requires for its solution a greater degree of assistance from the practicing physician than merely early and proper therapy.

In the delicate task of securing information concerning sexual contacts of patients with venereal disease of recent acquisition, the physician who embodies the patient's hope for cure holds an advantage which no other person can attain. Especially at the moment when diagnosis has been made, before treatment is begun, information may be secured, not only concerning the presumed source of infection, but in respect to the sometimes large number to whom the disease may have been transmitted. We are informed that "as a rule, he (the physician) has cooperated splendidly with health-department personnel who have requested his assistance in the questioning of his private cases, either by securing the names of the contacts himself, or by approval of such questioning by health-department personnel. It sometimes happens, however, that such cooperation is not forthcoming, and that the physician takes it upon himself to forbid an approach to his patient to discover the names of the contacts, or, contrary to Regulation 2 of Chapter II of the Sanitary Code, may refuse to reveal the full name and address of the patient previously reported only by the initials and date of birth."

As one health officer writes: "Though I recognize that such refusals to cooperate are usually dictated by the physician's solici-

tude for the marital felicity of his patients, I feel that this is one of the situations in which the privacy of the individual is of less importance than the general good. To be specific, one can be quite certain that for every diagnosed case of venereal disease there is at least one other person infected with the disease who may be at large, unaware of his infection, spreading the virus which he bears among still other sexual contacts. Yet the denial of public interest in this matter places the health officer in an unfortunate quandary: to neglect his prescribed duty of checking the spread of communicable disease within the population which he serves, or to appear to disregard the wishes of a colleague."

The situation is one equally difficult for the doctor of public health and the doctor of medicine. Both are concerned primarily with the health and the best interests of the patient, the early diagnosis of his disease, early and competent therapy, and then with the public weal which demands the revelation of the source of the infection.

We submit that the number of physicians whose attitude is as described in the foregoing quotation is small, for the identification of additional cases is to the interest of the patient, and the physician, as well as to the community. The physicians of New York State have long enjoyed an enviable record for cooperation in all proper fields of public health activity. It is unthinkable that the location of venereal disease contacts should not be considered one of these.

Foresight

Great credit is due to the Commissioner of Health of the City of New York, Dr. Ernest L. Stebbins, and to his associates, Dr. Howard B. Shukoff, Dr. Whalen D. Sutliff, and Dr. Harold Brown in the planning and development of the Tropical Disease Diagnostic Service.

Anticipating the public-health problems which may result from the introduction of exotic diseases by servicemen and travelers from the tropics into this area, the Commissioner has prepared to meet them:

"To facilitate the recognition of cases of tropical disease, the Department has established the Tropical Disease Diagnostic Service which provides both laboratory and clinical facilities and has the advice and assistance of the specialists on the tropical disease staff of the Delamar Institute of Public Health, Columbia University. To study the incidence and to be on the alert for the spread of these diseases, the Department has appointed, in the Bureau of Preventable Diseases, an epidemiologist with special training and experience in tropical diseases.

"New York City is one of the focal points of world-wide travel and as such will at all times have imported cases of tropical disease. For their spread most of these diseases require specific intermediate hosts and other special environmental conditions which are not found in this area. The most common tropical diseases seen in New York City are amebiasis, malaria, and filariasis.[1]

"Recognizing the need for special laboratory facilities the Department offers to the profession services for the identification of parasitic infection. Dr. W. D. Sutliff, assistant director of the Bureau of Laboratories, is in charge of the laboratory work. In order to cope with any future increase in the demand for this type of diagnostic work, he has trained a group of fifteen department technicians in parasitology. A similar course for the training of hospital technicians will be offered early in 1945. For diseases of the tropics which are nonparasitic, such as bacillary dysentery or yaws, the general laboratory facilities of the Department are available for cultures, serology, darkfield examination, and the like.

"The Tropical Disease Diagnostic Service also provides consultation by physicians trained in this specialty. Physicians, hospitals, and laboratories may secure advice concerning diagnosis, treatment, and prevention of tropical diseases, as well as methods of submitting specimens. Epidemiologic aspects of the work are under the direction of Dr. H. B. Shukoff of the Bureau of Preventable Diseases.

While the location of this Service at 600 West 168th Street, New York City, is of special benefit and convenience to the physician of the metropolitan area, we see no

[1] Quarterly Bulletin, Department of Health, New York City, Dec., 1944.

reason why its facilities and assistance could not be available to physicians of the entire State. One expects the greatest concentration of possible cases of exotic disease in the large metropolitan areas, but they will occur elsewhere, also.

It is likely, therefore, that the Tropical Disease Diagnostic Service will prove to be of benefit to many throughout the State. Improved transportation facilities, an inevitable result of the war, will materially assist and broaden the Service's usefulness.

Health Teaching in the Schools

After many years of study, a *Syllabus in Health Teaching* has been prepared and issued for use in the public high schools of the State, under the direction of the Division of Health and Physical Education of the University of the State of New York.

In the preparation of the content of this syllabus, many agencies and people cooperated, as the foreword sets forth, among them the Subcommittee on Child Welfare of the Council Committee on Public Health and Education of the Medical Society of the State of New York. It marks a really notable advance in its approach to the difficult subject of health teaching, a contribution to this field of which the State may well be proud.

Wartime needs and the weaknesses revealed as a result of war have helped to shape its content. The units of study were prepared by a state health-teaching committee under the direction of the Division of Health and Physical Education. The bulletin has been reviewed by the representatives of several organizations, departments of state and local school systems, whose constructive suggestions have played an important part in its preparation.

The major consideration in preparing each unit was to select the goals and learning activities most likely to result in improved health practices and health status of high-school youth. At the junior high-school level, special emphasis is placed on hygiene, while basic physiology and anatomy have received greater stress in the units of study for the senior high school.

The syllabus is distributed to the schools as a practical aid to administrators and health teachers for immediate use in establishing local health teaching programs. It is contemplated that a further edition based on its use during the coming year will become fully effective, under the leadership of qualified health teachers and health coordinators, by September 1, 1945.

While this bulletin is concerned with the function of the schools in teaching health, it is important to show, although briefly, that two other areas are important parts of the school health education program. One of these areas is called school health service. This comprises expert services in the health-examining of children, appraising their strengths and weaknesses, securing treatment of remediable defects and protection against certain communicable diseases, and giving health guidance to individual pupils. The effort in this area is to secure the treatment of handicaps, to protect against the hazards of infection, and to educate young persons through experience in preventive health measures and in the proper care of disease and defect.

The other area of health education is healthful school-living, a term that includes the hygiene of the school plant—lighting, heating, ventilation, seating, cleanliness; the school nutrition program; pupil-teacher relationships in developing and maintaining healthful reactions in matters of discipline. individual differences, success and failure punishment, and pressure for accomplishment; and conditions of the school organization that may affect health, such as arrangement and conduct of work, recreation, rest and recess periods, home study, and daily health inspections.

It is obvious that the third area of health education, health teaching, has rich relationships with the first and second. It is equally clear that in the development of health education in any one or all of these areas the administrator of the school has the central responsibility.

This bulletin is designed to present the

material for the basic course work in health required by the Regents. Some health teaching is now going on in connection with courses in biology, home economics, general science, and other subject areas. There is need for coordination, however, to avoid wasteful duplication of instruction, but the health field is so rich in materials that such duplication can be avoided readily. It is expected, therefore, in addition to the basic health teaching, that all teachers of courses containing health implications will continue to contribute to the health understandings of their pupils.

Thus, in the language of the syllabus itself, its objectives are set forth. To anyone who has had the privilege of observing the countless hours of conference and discussion necessary to bring forth this work, its publication will mark not the end but the beginning of real progress in this extraordinarily difficult field of the educator's art.

Physicians of this State who, through their State Society, have contributed materially to the content of the syllabus will observe with interest the future status of health teaching and guidance in the schools. It is one thing to write a syllabus. To put the content into actual practice is quite another.

Considering the mechanics by which this has to be accomplished, the training of teachers, modification of the ideal to fit the practical limitations of curricular possibilities, the thousand details of background, instruction, modalities, personalities, it would be unfair to expect too much too soon. But the objective is excellent, and the prospect of reasonably uniform health teaching in the State seemingly assured.

Current Editorial Comment

Of This and That

Bulletin 7[1] of the Council on Medical Service and Public Relations of the A.M.A. refers to *H.R. 284* by Mr. Randolph, of West Virginia, which is a bill to provide for health programs for government employees. It has been referred to the House Committee on Civil Service.

This bill provides medical facilities for all Federal employees. There is already established some facility of this kind for certain departments, but Mr. Randolph would like to see it extended to cover all Federal employees. The services are to be established only upon recommendation by the Civil Service Commission after consulting with the Public Health Service and are to be limited to: (1) treatments of minor illnesses and dental conditions, except in cases of emergency; (2) pre-employment and other examinations; (3) referral of employees to private physicians and dentists; (4) education and preventive programs relating to health, including alleviating of health hazards in the working environment.

Also: *H.R. 327*, by Mrs. Rogers, Massachusetts, a bill to provide for the establishment of a permanent nurse corps in the Veterans Administration referred to the Committee on World War Veterans' legislation, provides for the establishment in the Veterans Administration of a permanent Nurse Corps, to be known as the Veterans Administration Nurse Corps, and hereinafter referred to as the Nurse Corps. The officers of the corps shall consist of one Superintendent of Nurses, with the rank of colonel, to be appointed by the President, and 16,000 officers.

Such a permanent nurse corps in the Veterans Administration would seem to be desirable in our opinion. Dr. Joseph Lawrence, in reporting these bills in the Seventy-Ninth Congress, adds, with his usual good common sense, "If you are particularly interested in any bill and especially if your congressman is the author of any, write to him for a copy, designating it by its number.

"Your congressman will appreciate the interest you show and it is a good public relations act to begin your correspondence with your congressman before you need write him to oppose other congressmen's bills."

[1] Jan. 25, 1945.



The New President, Edward Rutherford Cunniffe, M.D.

Dr. Edward Rutherford Cunniffe was born in Port Jervis, New York, where he prepared for college and was graduated from Cornell University Medical College with the class of 1903. He served his period of intern training at Fordham

Hospital, New York City, and almost immediately was appointed to the attending staff of the hospital, where he has served as assistant visiting surgeon, associate visiting surgeon, and attending surgeon, and has been director of the Second Surgical Division for the past twenty years. During a great part of this period he was associated with Fordham University Medical School, teaching physiologic psychology, then physiology, soon transferring to the surgical department as an instructor, assistant professor, and he held the rank of clinical professor of surgery when the school closed.

He is a member of the Bronx County Medical Society, Bronx Medical Association, Bronx Surgical Society, New York Surgical Society, American College of Surgeons, and the American Medical Association. He has held the office of President of the Bronx County Medical Society, Bronx Surgical Society, and First District Branch Society. He has been a member for many years of the Medical Society of the State of New York and American Medical Association's House of Delegates. He has been for the past nine years a member of the Judicial Council of the American Medical Association and is now chairman of that Council. He served for some time as Trustee of the Medical Society of the State of New York, resigning from that position last year.

His hospital appointments at present are Director of Surgery, Second Division, Fordham Hospital, visiting surgeon at Union Hospital, Consulting Surgeon, Morrisania Hospital, all of New York City, Consulting Surgeon at Holy Name Hospital, Teaneck, New Jersey, consulting surgeon at St. Joseph's Hospital, Yonkers, New York, and consulting surgeon at St. Francis Hospital, Port Jervis, New York.

Dr. Cunniffe has participated actively in the work of the State Society for many years. He is familiar with its problems and is well qualified to undertake the onerous task which he is about to assume as its President.

THIOURACIL IN HYPERTHYROIDISM

A Survey of One Year's Experience

MARTIN G VORHAUS, M D , and HAROLD H ROTHENDLER, M D , New York City

(From the Hospital for Joint Diseases)

THE clinical evaluation of a new drug in the treatment of disease must be determined by the largest possible experience in its use This requires the cooperation of all the groups engaged in research so that the conditions for investigation in a definite clinical entity may be as varied and diverse as possible

The experimental evidence that the administration of thiouracil in hyperthyroidism is followed by a reduction in the basal metabolic rate appears well established This is frequently followed by a reduction in tachycardia, a decrease in tremor and sweating, a gain in weight and a general feeling of better health These observations have been reported by several competent clinicians and constitute a valid reason for continued clinical study

The first problem confronting the clinician is the precise determination of the diseased state under survey Hyperthyroidism comprises a large group of clinical states not only varied in the intensity and character of their clinical manifestations but differing in their causative and pathologic concepts The classic syndrome of Grave's disease is well recognized, yet numerous variants have been reported and corroborated Thus, hyperthyroidism with or without goiter, and goiter with or without hyperthyroidism are known to exist The same is true of exophthalmos Still more perplexing is the existence of hyperthyroidism with normal or increased cholesterol figures and/or a normal metabolic rate

It therefore becomes apparent to the internist that there is no single clinical or laboratory testimony which alone can be used to measure the success of this new drug in the treatment of hyperthyroidism An accurate estimation can only be determined in relation to the entire clinical picture—namely, to health and the maintenance of health in large number of patients

The second step in this critique of thiouracil relates to its method of use Evidence is accumulating that it is definitely superior to iodine in the preoperative preparation of the toxic hyperthyroid patient The thiouracil-treated patient has a smoother operative course and a milder postoperative reaction Its effect in the reduction of postoperative recurrences is still to be studied and evaluated In addition to its preoperative value, its merit as a purely therapeutic agent cannot yet be determined The clinician is well aware of spontaneous regressions of hyperthyroid states To what extent thiouracil may increase the number of these cases requires much more time to ascertain The duration of thiouracil therapy, the amount of the daily dosage, and the intervals between courses of treatment are now being investigated

A third point to be considered is the toxicity of thiouracil It is already clear that some individuals are sensitive to small amounts and others insensitive to relatively large amounts of thiouracil The type and intensity of thiouracil reactions must be tabulated and analyzed statistically so that the factor of safety of this drug can be judged accurately Hyperthyroid states are so frequent and widespread that the release of this drug for general use will undoubtedly be followed by a great demand for it all over the world

With a frank recognition of these problems, we are presenting our clinical observations on the use of thiouracil in hyperthyroidism—its value, its limitations, and its dangers

Procedure

The cases in our series were taken from clinics as well as from private practice Any patient whose signs and symptoms justified the clinical impression of hyperthyroidism was included in this series This method of study was motivated by our conviction that our experiences with the drug would be typical of the experiences of other clinicians after the publication of the first few papers and the release of thiouracil for general use It was felt that a more accurate clinical evaluation of the advantages, limitations, and undesirable results of this new drug could be obtained by this type of case selection rather than by a deliberate selection of those patients whom the drug might be expected to benefit

We have analyzed our experiences in detail, as we feel that only by the careful compilation of similar results of all workers in this field can a definite concept in regard to the use of thiouracil in hyperthyroidism be evolved

This preliminary report is based upon our experiences with 25 patients who have been under treatment sufficiently long to permit some clinical observations

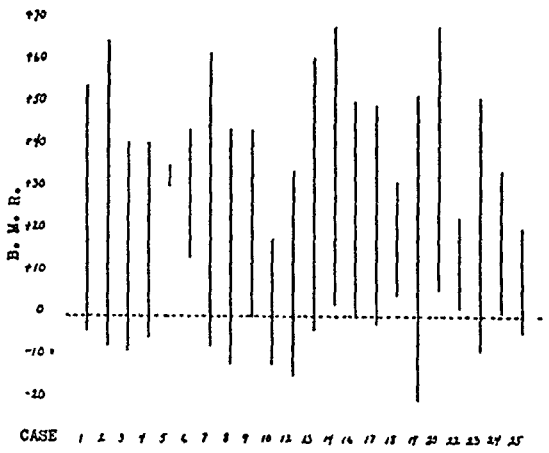


FIG. 1. B.M.R. responses of 22 patients treated with thiouracil, showing pre-treatment level and response to maximal thiouracil effect.

As a result of thiouracil therapy* 22 patients showed varying degrees of improvement in their hyperthyroid state, while 3 patients were classified as therapeutic failures. Of these 22 cases (88 per cent) surgery has been performed on 4, and advised for a fifth. If thiouracil therapy is to be evaluated as a medical regimen in hyperthyroidism, then these 5 surgical cases should be classified as medical failures. Statistically speaking, then, of 25 cases treated, 17, or 68 per cent, were improved by thiouracil and 8, or 32 per cent, were unimproved.

Of the 22 cases showing any improvement, 18 (83 per cent) were female and 4 (17 per cent) were male. Their ages ranged from 15 to 61 years with 85 per cent in the 31 to 50 age group.

Analysis of Signs and Symptoms of 22 Cases (88 Per Cent) Improved

Goiter.—Prior to treatment, 6 cases were without goiter, while 16 had palpable goiters. Of these 16, the size of the goiter increased perceptibly in 4 cases; in 5 there was a definite diminution; and in 7 there was no apparent change.

Exophthalmos.—Seven of these 22 patients had no clinical exophthalmos. Of the remaining 15, 4 patients showed no change. In 9, however, there was complete disappearance, and in 2 a clear-cut reduction of the previously noted exophthalmos.

Tachycardia.—All of these 22 patients had a marked tachycardia which was sharply reduced in 9 per cent, and returned to normal in 91 per cent of this group.

Sweating.—Excessive sweating was present in 20 cases. It returned to normal in 17 cases, was noticeably less in 2, and unchanged in one case.

Tremor.—Tremor of the hands was present in 21 cases. It disappeared in 20 cases and remained unchanged in one case.

Changes in Body Weight.—Prior to therapy there was an average weight loss of 18 pounds in 15 patients. Two of the patients were gaining weight (one a young girl of 15, the other a diabetic), four had a constant weight, and the weight factor in one patient could not be evaluated because she was pregnant.

Following therapy, 19 of these 22 patients showed an average weight gain of 12 pounds; one patient showed no change in weight; and two others (one an obese diabetic) lost weight.

Basal Metabolism Rates.—Prior to therapy, all patients had elevated basal metabolic rates, ranging from +21 to +68, with an average of +45. Following improvement, all cases (100 per cent) showed a reduction in rates to an average of −1 (see Fig. 1).

Analysis of Thiouracil Dosage

Thiouracil was the only medication used in the course of this study except for small doses of phenobarbital (0.015 Gm.) in a few cases in the early days of treatment. No patient was asked to give up work or to take additional rest periods. On the contrary, all patients were urged to continue their usual routine of life. No special diets were advised nor was any attempt made to encourage increased food intake. We felt that only in this manner could clinical response and gain in weight be accurately interpreted as a therapeutic result, rather than as evidence of the patient's effort to cooperate.

The initial daily dose of thiouracil ranged from 0.2 Gm. to 0.8 Gm., given in divided doses two or three times daily. This initial dose (an average of 0.4 Gm. daily) was continued until clinical improvement, as evidenced by a drop in the metabolic rate and a modification of the preexisting symptoms of hyperthyroidism, was noted. This initial period of treatment varied from nine to sixty-one days, with an average duration of twenty-eight days. The earliest subjective manifestations of improvement were general reduction in body tension and nervousness, and were commented on by the patients themselves.

The period of therapy up to this first clear-cut clinical evidence of improvement was called the initial period; in the subsequent, or maintenance period, the dose of thiouracil was radically reduced. Doses ranged from 0.2 Gm. to 0.6 Gm. daily with an average of 0.2 Gm. daily, or one half the average dosage for the initial period.

All of our cases were closely followed during

* The thiouracil used in this study has been generously furnished by Dr. B. W. Carey, of the Lederle Laboratories, Inc., Pearl River, New York.

this maintenance period. The average period of observation for these patients at the time of this report (September, 1944) is one hundred and seventy-three days; one case has been under observation for four hundred and four days.

Evaluation of Thiouracil Therapy in 22 Improved Cases

For purposes of clinical evaluation we have divided our cases into the three following groups:

1. Complete disappearance of hyperthyroidism
   - A. After cessation of therapy
   - B. While on maintenance dose
2. Marked reduction of manifestations of hyperthyroidism
3. Slight reduction of manifestations of hyperthyroidism

In Group 1A we have five patients (cases 4, 7, 10, 19, 23) who have remained asymptomatic after medication was stopped. These cases had ranged in their B.M.R. from +23 to +62 before treatment, and ultimately reached a level of from −7 to −20. At the time of writing they had been without thiouracil from forty-nine to two hundred and ten days; they are all leading normal lives, free of any signs or symptoms of hyperthyroidism. This clinical response required a total intake of thiouracil ranging from 9 to 57 Gm. in from sixty-eight to one hundred and eighty-one days. Statistically this gives an average intake of 24.1 Gm. in one hundred and thirty-nine days, or a daily average intake of 0.2 Gm.

In Group 1B we have three patients (cases 1, 9, 16) who have become asymptomatic while on small maintenance doses of thiouracil.

Case 1.—The patient has taken 85.2 Gm. in four hundred and four days. For the past ten months she has been on a maintenance dose of 0.1 Gm. daily and is asymptomatic. This patient is diabetic, and since improvement in her hyperthyroid state her insulin requirement has been cut in half. Her congestive failure has improved sufficiently so that diuretics are no longer necessary.

Case 9.—The patient is a young woman who has made a gratifying response to an extremely small dose of thiouracil. She has taken 18.8 Gm. in two hundred and forty-four days, or a daily average of 0.07 Gm. For the past three months, on a maintenance dose of 0.1 Gm. once a week, she was asymptomatic. At that time her B.M.R. was +5, and medication was stopped.

Case 16.—A woman has been under observation for fourteen months. She has taken a total of 100.3 Gm. of thiouracil in three hundred and fifty-seven days, and has been able to be without medication for a continuous period of three months. Now, on a maintenance dose of 0.1 Gm. daily, she is free of hyperthyroidism with a B.M.R. of +4. (See A. F.)

In Group 2 we have placed those patients (cases 2, 6, 8, 12, 17, 18, 22, 24, 25) whose manifestations of hyperthyroidism have been markedly reduced. Some of these patients have been able to stop medication for as long as five months; it is possible that eventually some of them may be reclassified into the asymptomatic group. At this time, however, although the metabolic rates of the patients in Group 2 are all within normal range, the patients still manifest some residual hyperthyroid symptoms, such as slight tachycardia, occasional minimal sweating, or tremor.

Case 12.—He has been a known hyperthyroid and diabetic for twelve years. He has taken a total of 37.4 Gm. of thiouracil in one hundred and fifty-three days, or a daily average of 0.2 Gm. The period of observation of this patient has extended well over a year, during which time he was without medication for four months, then resumed a daily dose of 0.2 Gm. when his symptoms recurred. With the abatement of his symptoms, he was taken off medication for three weeks, and then took 0.1 Gm. every other day for six weeks. Since then (three months at the present time) he has had no medication, his diabetes is under better control, he feels well, and his last B.M.R. was −3.

Case 2.—The patient has gained 18 pounds in the five-month period of observation. She has taken a total of 42.9 Gm. in one hundred and seventy-one days, or a daily average of 0.25 Gm. Now on a maintenance dose of 0.3 Gm. daily, her last B.M.R. was +5.

Case 17.—A woman has taken a total of 43.7 Gm. in two hundred and fourteen days, or a daily average of 0.2 Gm. She has been on a maintenance dose of 0.2 Gm. daily for the past four months, and has gained 7 pounds; her last B.M.R. was +2.

Case 8.—The patient, diabetic, had originally lost 50 pounds. On a total of 11 Gm. in seventy-six days, or a daily average of 0.14 Gm., he has regained 12 pounds, and his blood sugar has dropped from 180 to 116 mg. On a maintenance dose of 0.1 Gm. daily for the past three weeks, his last B.M.R. was +12.

Case 6.—A woman had undergone a hemilobectomy fourteen months previously. She took a total of 23.1 Gm. in ninety-one days, or a daily average of 0.25 Gm. She was asymptomatic when last seen, with a B.M.R. of +14. She was told to continue taking 0.2 Gm. daily, but has not returned for a check-up.

Case 22.—A young girl 15 years of age has had 59 Gm. in two hundred and forty-five days, or a daily average of 0.2 Gm. Asymptomatic for the past four months, she has gained 11 pounds; on a maintenance dose of 0.3 Gm. daily for the past three weeks, her last B.M.R. was +7.

Case 18.—The patient is diabetic. She has taken 42.3 Gm. in eighty-eight days, or a daily average of 0 5 Gm.

When she was last seen she was on a maintenance

dose of 0.6 Gm. daily. At that time her diabetes was under better control, and her B.M.R. was +5.

Case 24.—This man has taken 69.3 Gm. in one hundred and twenty days, or a daily average of 0.5 Gm. He has gained 33 pounds, and on a maintenance dose of 0.3 Gm. daily, his last B.M.R. was +1.

Case 25.—A woman had had a second-stage thyroidectomy one year previously, and had taken iodine until two months before thiouracil medication was begun. After taking a total of 9.4 Gm. of thiouracil in ninety-eight days, a daily average of 0.1 Gm., she had gained 4 pounds, and was asymptomatic except for a slight residual exophthalmos. When last seen she was on a maintenance dose of 0.1 Gm. daily, and her last B.M.R. was +10.

In Group 3 have been placed five patients (3, 5, 13, 14, 20) whose clinical response to thiouracil alone was deemed minimal, and for whom surgical intervention was ultimately recommended.

Case 5.—A woman had a large, hard, nodular goiter with hyperthyroidism and auricular fibrillation. On thiouracil she gained 6 pounds, and her auricular fibrillation disappeared. After eight weeks of this regimen, in which time she took a total of 28 Gm. of thiouracil, or a daily average of 0.5 Gm., she was sufficiently improved to be permitted to undergo a hysterectomy for multiple fibroids. The fibrillations returned on the third day postoperatively, but subsided in four days on a daily thiouracil intake of 0.3 Gm. After four more months of continuous medication, on an average daily intake of 0.2 Gm., she had gained 7 pounds and was free of fibrillation, although her metabolic rate had fallen at no time to below +30. Thyroidectomy was advised and was performed by Dr. L. Druckerman at Mt. Sinai Hospital. The thiouracil was stopped nine days postoperatively. Four weeks later the patient was asymptomatic, with a metabolic rate of −3.

Case 14.—The patient had had enlargement of the thyroid gland for over thirty years. When first seen, she was experiencing frequent transient attacks of auricular fibrillation, which disappeared after eight days of thiouracil medication, 0.3 Gm. daily. However, it took a total of 300 Gm. in the next eighty-eight days to reduce her B.M.R. from its original level of +68 to +12. In spite of the lowered metabolic rate, it was necessary to increase the daily dose to 0.6 Gm. daily for the next three months in order to control her other symptoms of hyperthyroidism, although her fibrillation did not recur. On this regimen she gained 27 pounds. Thyroidectomy was advised at that time and was performed by Dr. D. Casten at the Hospital for Joint Diseases. Two days postoperatively there was a transient return of fibrillation for one day, but otherwise convalescence was uneventful. Her postoperative B.M.R. was +8, thiouracil has been discontinued, and the patient feels well.

Case 3.—The patient was a young woman, 21 years of age, whose metabolic rate dropped from +41 to ±0 after fifty-six days of thiouracil medication, totaling 12.6 Gm. or a daily average of 0.2 Gm. Discontinuation of medication for two months (because of her marriage) resulted in a recurrence of her hyperthyroid symptoms and an elevated rate of +39. A resumption of thiouracil, 17.5 Gm., in the next sixty-three days, effected a good clinical response. Because of her youth and her apparent need for continuous medication, a thyroidectomy was performed by Dr. Berg at the Hospital for Joint Diseases. She made a good recovery, thiouracil was stopped, and her postoperative B.M.R. was −13.

Case 13.—A young woman took 38.1 Gm. in ninety-one days, or a daily average of 0.4 Gm. She showed considerable clinical improvement, with a gain of 18 pounds, and a marked reduction in her pretreatment B.M.R. of +61. However, her goiter continued to grow in size (the circumference of her neck increased 2¼ inches), and surgery was consequently recommended, and performed by Dr. M. Bodenheimer at the Hospital for Joint Diseases. *This patient received iodine for one day* postoperatively through an inadvertence. Thiouracil was discontinued seven days postoperatively, when her B.M.R. was −4, *and the patient is now well and has resumed her normal routine of life.*

Case 20.—The patient had had a left hemithyroidectomy twelve years previously. Because of enlargment of the right lobe with hyperthyroidism and a B.M.R. of +68, thiouracil therapy was instituted. Her response was slow; three months of continuous medication amounting to 43.1 Gm. of thiouracil in one hundred and forty-six days, or daily average of 0.3 Gm., was needed before the basal metabolism rate fell to normal. On continued therapy of 0.2 Gm. daily the B.M.R. rose to +12 and later to +27. At the same time, the right lobe of the thyroid had enlarged considerably, producing choking sensations. Operation was advised, but refused, and the patient did not return for further check-up.

Effect of Thiouracil Therapy in Associated States

Auricular Fibrillation.—Auricular fibrillation in long-standing hyperthyroidism is a well-known clinical finding. It is the frequent experience of internists that such fibrillation usually persists even after thyroidectomy. At times it is resistant to treatment and occasionally represents the only clinical residue of pre-existent hyperthyroidism.

We have had the unique opportunity of observing the disappearance of auricular fibrillation in three cases of long-standing hyperthyroidism coincidental with thiouracil therapy.

The first of these, Case 5, has been described in detail among the patients who were operated upon. Her fibrillations were confirmed by electrocardiogram, and in twenty-eight days, after a total intake of 19.6 Gm., or a daily average of 0.7 Gm., her rate had dropped from an apex rate of 136 to a regular sinus rhythm of 70. After six months of

medication, during which time a hysterectomy for multiple fibroids was performed, she underwent a successful and uneventful thyroidectomy, with no return of her fibrillation.

Case 16.—A 61-year-old woman has been grouped under 1B, as she has become completely asymptomatic on a small maintenance dose of 0.1 Gm. daily. When first seen, she had a B.M.R. of +51, and was fibrillating at the rate of 120. She was started on a daily dose of 0.8 Gm. After four weeks of medication, she was hospitalized for a cerebral embolism and facial palsy. She was digitalized (3 Gm. daily for ten days only) and the thiouracil was continued. At that time the heart returned to regular sinus rhythm, with a rate of 84, and the basal dropped to +9. This patient has been followed for over a year in the clinic, with no recurrence of fibrillation, and with complete disappearance of her hyperthyroid symptoms on the present maintenance dose of 0.1 Gm. daily.

Case 14.—This patient has already been described in detail under the cases operated upon. Her original fibrillating rate was 180, but she returned to regular sinus rhythm after eight days of thiouracil therapy. She had a transient return of her fibrillation for one day, two days after thyroidectomy. Three weeks later she had made a complete recovery, with a B.M.R. of +8 and a regular sinus rhythm of 76.

Diabetes.—Four of our patients had diabetes mellitus associated with their hyperthyroid conditions. Prior to the onset of thiouracil therapy the diabetic state of these four patients was controlled with difficulty by diet in two instances (Cases 12 and 18); in the other two cases (Cases 1 and 8) insulin was needed. Since these patients have exhibited the characteristic thiouracil response, a modification of their diabetic state seems to have taken place. Dietetic control has been more readily established, and of the two cases requiring insulin, Case 8 no longer needs it, while Case 1 has had her insulin requirement cut in half.

This experience with thiouracil therapy parallels the well-annotated observations of patients with hyperthyroidism complicated by diabetes in whom thyroidectomy was performed.

Pregnancy.—We have had the opportunity of observing a patient who started her thiouracil therapy in the third month of her pregnancy. She was maintained on thiouracil until the day of delivery, and showed the characteristic clinical and subjective response to the drug. She was delivered of healthy twin boys. Thiouracil was discontinued from the day of delivery for seven consecutive days. A maintenance dose of 0.1 Gm. every other day was resumed and continued for one month. At that time she was asymptomatic, and thiouracil was discontinued. As far as we know, this is the second report of the administration of thiouracil during pregnancy.

Failure of Thiouracil Therapy

As stated earlier in the paper, 22 of the 25 patients showed some degree of favorable response to thiouracil. However, we have classified five of these as therapeutic failures from the medical point of view since four of them eventuated in surgery and the fifth required surgical intervention. The three patients detailed below were considered failures in thiouracil therapy because of undesirable complications. Their reactions to therapy were considered of sufficient clinical significance to justify cessation of the drug.

Case 2.—The patient was a woman 42 years old, with known rheumatic heart disease, who had lost 15 pounds in a six-month period. The thyroid gland was slightly enlarged, the B.M.R. +37, R.S.R. 96, but tremor, sweating, and exophthalmos were absent. After forty-two days of continuous medication (0.6 Gm. daily), a total intake of 25.2 Gm. of thiouracil, her gland was smaller, her metabolic rate had dropped to +26, but her hemoglobin, which had been 90 per cent before therapy was started, had fallen to 69 per cent. Thiouracil was discontinued, and iron therapy begun. At the end of two months, with a loss of 4 pounds, her basal metabolism rate had risen to +49, but her hemoglobin was 88 per cent. Two months later, or four months after the cessation of thiouracil therapy, she had gained one pound, was free of tachycardia, tremor, sweating, and exophthalmos, her thyroid was not enlarged, and her metabolic rate had fallen to −2.

This case demonstrates the development of anemia coincidental with thiouracil administration. With the cessation of thiouracil and the institution of iron therapy, the blood returned to normal and the B.M.R. rose. Subsequently there was a spontaneous return to normal of the metabolic rate. The absence of tachycardia, tremor, and exophthalmos represents a marked variant of the usual clinical picture of hyperthyroidism. Regardless of the validity of the clinical impression, it seems justifiable to classify this case as showing one undesirable effect of thiouracil.

Case 15.—The patient was a known hyperthyroid, who had responded favorably to iodine medication five and two years previously. When first seen, she was again taking iodine. Her physical findings, nine days after the cessation of iodine therapy, were a moderately enlarged thyroid gland, a fine tremor of the hands, no exophthalmos, R.S.R. of 160, and a B.M.R. of +53. Thiouracil (0.4 Gm. daily) was started. After twelve days of continuous medication her temperature rose to 101.5 F. Thiouracil was stopped, but the temperature rose to 105.5 F., with a moderate leukopenia (4,700 W.B.C.). Two similar febrile episodes occurred a few hours after [illegible] Gm. to 0.4 Gm. of [illegible] few hours each time. The white blood count ranged from 4,300 to 5,700. This patient also developed transient paroxysms of auricular fibrillation with her B.M.R.

at +58, 52, and 54. Because she was considered a poor operative risk, x-ray therapy was started.

This patient was checked on three occasions, and each time temperature elevation followed the administration of very small doses of thiouracil. Slight leukopenia was also noted. This case represents thermal and leukopenic reactions to the drug and probably belongs in the group of drug idiosyncrasies.

Case 21.—A 43-year-old man had had a coronary occlusion eleven months before. Following recovery he had symptoms of precordial angina and hyperthyroidism. His thyroid was not enlarged, and he had regular sinus rhythm; he had a slight tremor, moderate exophthalmos, and a metabolic rate of +29. Thiouracil, 0.3 Gm. daily, was started. After seven days of medication, he complained of pain in the right shoulder, numbness of the fingers, and weakness of the right hand. Medication was stopped; the pain in the shoulder subsided gradually. Due to lack of cooperation on the part of the patient, thiouracil therapy could not be repeated.

This case would seem to represent an idiosyncratic reaction, since in seven days of therapy, with a total intake of 2 Gm., a neuritic syndrome developed.

These three cases, representing 12 per cent of the total series, demonstrate undesirable reactions to thiouracil, of which two developed with very small total intake of the drug (Case 21 with a total intake of 2 Gm.; Case 15 with an initial total intake of 4.8 Gm., and subsequently with 0.1 Gm. and 0.4 Gm.). The third patient seemed to tolerate the drug well through the initial stages, but at the end of seven weeks (total intake of 25.2 Gm,) she developed moderate anemia.

There are several references in the literature specifying undesirable effects of thiourea and thiouracil. Of these there have been five deaths.[1–5] A survey of these published reports indicates the same two types of reaction we have observed, namely, an early idiosyncratic reaction to small amounts of the drug, or a tolerance in the initial stage, but a later or "cumulative" effect of the drug.

In our small series the unfavorable reactions represent 12 per cent of the total. There is no way, at the moment, of determining what percentage of unfavorable reactions the published reports represent. At the present time we know of no way of predicting which cases will react unfavorably. We emphatically urge careful clinical observation of all cases receiving thiouracil. A suggestion has been made recently of the coadministration of folic acid, which may modify unfavorable thiouracil reactions.

In our observations we encountered other untoward effects of thiouracil, not sufficiently severe to justify cessation of therapy, but worthy of mention here. Case 2, after she had taken 0.3 Gm. of thiouracil daily for three days, developed a flushing of her face and forearms, accompanied by itching. With cessation of therapy for two days, the skin reaction subsided. Medication was resumed in the same dosage, with a slight recurrence of the flushing and minimal itching. The drug was continued, and the skin reaction subsided, disappearing completely fifteen days after it had first developed. This same patient developed a moderate secondary anemia while on thiouracil therapy, which responded to iron medication, while continuing the thiouracil. Case 7, the pregnant woman, also developed slight anemia in the eighth month of her pregnancy which required no medication. Case 12 developed hypochromic anemia which quickly responded to oral liver therapy. His thiouracil treatment was discontinued at that time because the B.M.R. was well within normal limits.

Summary

In the past year we have observed the effect of thiouracil in 25 cases of hyperthyroidism. In three of these patients the drug was discontinued because of undesirable reactions; neuritic, febrile, anemic, and leukopenic complications were noted. In the remaining 22 cases beneficial modifications of the clinical state, ranging from slight to marked, were observed. In five patients the response to thiouracil therapy alone was deemed clinically insufficient to justify long-term administration. Operation was advised for these five patients, four of whom have already successfully undergone thyroidectomy.

In the remaining seventeen there has been moderate to marked improvement in the hyperthyroid state. Five patients have remained asymptomatic for from two to four months after discontinuance of the drug. In one patient thiouracil was administered during the last six months of her pregnancy without any apparent ill effect on the offspring. Four patients with diabetes and hyperthyroidism showed favorable modification of their diabetes as their hyperthyroid state responded to thiouracil. Three patients with auricular fibrillation returned to normal sinus rhythm following thiouracil medication.

In our opinion, the administration of thiouracil carries with it an unpredictable danger of unfavorable or toxic reactions. Deaths have been reported with thiouracil or related drugs. We believe that this drug should not be released for general use because of the probable occurrence of these reactions.

The drug for the optimal medical management of hyperthyroidism would seem to be a chemical compound retaining all the beneficial effects of thiouracil noted above, but free of the undesirable and dangerous reactions observed by us and

others. Other thiourea derivatives or modifications are already being studied. Until such time as a more satisfactory drug is reported, we wish to re-emphasize the experimental nature of thiouracil administration and the need for the utmost caution in its use.

Appreciation is expressed for the technical assistance of Mildred Lefkowitz, B.A.

1130 Park Avenue, New York City
7 East 82nd Street, New York City

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OPPORTUNITY!

The fate of the voluntary nonprofit hospitals is inextricably bound up with that of medicine; problems of either are problems of both; separate and unrelated consideration of those problems cannot produce correct solutions; therefore, hospitals and doctors must act in concert if care of the sick is to be conducted in a humane way and further progress is to be made in medical education and research.

To the doctor is entrusted the solemn duty of protecting, preserving, and restoring health, but the fruits of the knowledge, skill, and experience of the

war against sickness, injury, and disease; they must work together.

It is in the light of these premises that the Medical Society of the State of New York and the Hospital

Important matters have already engaged the attention of the Joint Committee. Steps have been taken to solve a problem that has long perplexed both groups. For some reason the professional status of the specialties of roentgenology, pathology,

lengthy discussion the Joint Committee has agreed on amendments to the Workmen's Compensation Law and the Education Law that seem to meet the requirements of both groups. They will be sponsored jointly. The hospitals are giving full support to the Medical Society in opposition to the chiropractic bill. Here, then, is strong evidence of the need of a Joint Committee and its value to both organizations.

A good beginning has been made, but much more remains to be done. For one thing, the Joint Committee must be given the loyal and whole-hearted support of the parent bodies.

Today the war-torn world knows well the tragic consequences of the evil policy of "divide and rule."

this pernicious doctrine. Outside groups are now invading the field of health, but instead of meeting them by determined and coordinated action, medicine and the hospitals passively go their separate ways.

Who among us will knowingly contribute to the continuation of such a policy? Who is willing to accept the responsibility for prolonging a condition that may have a far-reaching and deleterious effect on public health?

The efforts of the Joint Committee must not be allowed to fail. Opportunity knocks loudly—let the doors be thrown open wide to admit good will, understanding, unity, and cooperation, by the hospitals and the medical profession. This is the true way to advance the cause of good health, the free practice of medicine, and the development of the voluntary nonprofit hospital system. Now is the time to benefit by the wisdom of the old adage, "in union there is strength"—tomorrow may be too late.

Doctors and hospitals, close ranks! With mutual respect, confidence, and determination, let us go forward together to bring health in full measure to the people of New York.—*John F. McCormack, President, Hosp. Assn. of New York State, in Hospital Forum, March, 1945*

DR. LYMAN GUY BARTON, SENIOR

Mrs. Marjorie L. Porter, Plattsburg, N.Y.

During the past century and a half northern New York has been served by men outstanding in several professional fields. In the medical field the name of Barton has long been honored, since it was in 1839 that the first Lyman Barton started practicing in Willsboro, to be succeeded by his son and grandson, all of whom have gained enviable reputations.

Lyman Barton was born in Hebron, in Washington County, New York, September 20, 1812, the son of Simon and Olive Cary Barton. He studied medicine with his uncle, Dr. Ira Barton, of Waterford, Pennsylvania, and was graduated from the medical department of Dartmouth College in 1838. In 1839 he settled at Willsboro, and the following year, December 31, 1840, married Minerva Aiken, a daughter of Maj. Abraham Aiken, Sr., who came to Willsboro from Dutchess County in 1784. Mrs. Barton's maternal grandfather, Job Boynton, came to Burlington, Vermont, from Massachusetts in 1780 on snowshoes, and his daughter, Elizabeth, Mrs. Barton's mother, was the first child born in Burlington. Job Boynton was one of the pioneer boat builders and operators on Lake Champlain, long before the advent of steamboats on the lake. The seven children of Dr. and Mrs. Lyman Barton were Elizabeth, Abbie, Ellen, Susannah, Sarah, Cora, and Lyman Guy.

In 1869 the University of Vermont conferred upon the first Dr. Lyman Barton the honorary degree of Master of Arts. He was a permanent member of the old Medical Society of the State of New York, and was one of the founders of the Medical Association of the State of New York in 1884. He was admitted as a member of the Essex County Medical Society in 1839 and was its president in 1861 and 1862, and again from 1865 to 1867. He was recognized as one of the ablest and most progressive members of his profession in the state. He was one of the first surgeons in the United States to successfully perform the difficult and then almost unknown operation of ovariotomy, which was noted in leading medical journals of this country and Europe. He died at Willsboro October 20, 1899.

Various papers and case records of Dr. Barton's partially reveal his personality, including his personal philosophy of life. Daybooks kept by him as early as 1841 list many of his patients, together with his extremely modest fees. At one time he recorded a ride up the mountain to call on Benjamin Boardman, at which time a blue pill was the prescribed dose, and the entire charge was thirty-eight cents. A meeting at the Phoenix Hotel in Willsboro, on January 8, 1842, netted Dr. Barton fifty cents; examination of Miss Baker, fifty cents; visiting D. Delance's and Charles Towner's school one day, seventy-five cents; and apportioning school money one-half day, 38 cents. Patients often paid their fees with merchandise, such as a plough, or with services, such as horseshoeing. Many of his patients' names are carried by descendants of Willsboro pioneers; a few well-known ones are Thomas Hoffnagle, Charles Morhous, Charles Stower, Daniel Fairchild, Horace Parkill, Levi Higby, Andrew Buckminster, Ira Manley, Timothy Frisbie, and others.

His case records include those pertaining to bilious pneumonia, gunshot wound, old age, cerebrospinal meningitis, diphtheria, apoplexy, and consumption. In September, 1866, Dr. Barton was called upon to give his testimony at an inquest pertaining to the death of a Mrs. McGregor, and this testimony he recorded in full. He was appointed at times to serve as guardian for children and kept an accurate accounting of the estates he handled. He was the attending physician of Rev. Cyrus Comstock, an early Congregational minister at Lewis, Essex County, who invented the Comstock buckboard and died at an advanced age after falling from his own buckboard in the vicinity of Willsboro Point.

These are only indications of the strenuous life led by the first Dr. Barton in this section of the Adirondacks. His valuable work was carried on by his son, Dr. Lyman Guy Barton, Sr., who was born on July 1, 1866, in the Town of Willsboro.

The second Dr. Barton received his early education in the public schools, in Troy Conference Academy, Poultney, Vermont, Ives Seminary, Antwerp, New York, and in the Granville Military Academy at North Granville, New York, from which he was graduated in 1883. He obtained a state scholarship and entered Cornell University the same year, taking the course in mechanical engineering. After three years at Cornell, at the urgent request of his father, he gave up the engineering course, and began the study of medicine at Dartmouth College, Hanover, New Hampshire. He later entered Bellevue Hospital Medical College, and graduated in 1891.

On June 18, 1885, Kittie Cornelia Wilcox, of Ithaca, became Dr. Barton's bride. Their

three children are Lyman G. Barton, Jr., A.M., M.D., F.A.C.S., Philip B. Barton, B.S., M.D., and Mrs. F. C. Dossert, artist, and at one time a designer of handmade jewelry for Tiffany's, New York City.

In a brief autobiography, Dr. Barton tells something of the members of the Bellevue faculty and his work there, and remarks that the lectures were good, special emphasis having been given to teaching everything considered important and necessary to be known before starting medical practice. At the end of the course there were no graduation exercises. Each student who passed the final examination was notified to that effect, and handed a diploma.

Following graduation from Bellevue Dr. Barton returned to Willsboro, hoping to be associated with his father in general practice. However, his father retired at once and gave both patients and equipment to his son. The elder Dr. Barton was then 82 years old and had been in practice for fifty-two years, the only physician in several surrounding towns, and the only one responsible for emergency surgical operations.

At that time the nearest hospital to Willsboro in New York State was over a hundred miles away; there was no laboratory in the county, no trained nurse, no telephones, no electric lights, or even electric power. Except for the D. and H. Railroad along the eastern side of Essex and Clinton counties, transportation was by horse-drawn vehicle. Several towns had no drugstore, and in the few existing ones only the so-called galenicals and patent medicines were dispensed. Also, with few exceptions, the physicians in the various towns were middle-aged or elderly, and all dispensed their own remedies. Supplies such as sterile catgut, surgical gauze, ready-made bandages, and plaster-of-Paris bandages were not obtainable. Cheesecloth was the substitute for gauze. All operations were performed in private homes and were done on kitchen tables.

When Dr. Lyman Barton began practicing in Willsboro he found that, in accordance with the custom of the time, his father measured powdered drugs on the tip of his penknife, having attained a high degree of accuracy in the act. The young doctor, however, felt that nothing should be left to chance in the procedure so, aided by his mechanical training, he soon invented a tiny scale for the purpose, constructing it so that it could be enclosed in the case of an old-style watch.

This small scale was the beginning of a long series of devices originated by Dr. Barton for the benefit of the medical profession and its patients—men, women, and children who may never know to whom they owe their debt of gratitude.

One of Dr. Barton's first designs was for a portable metal table with tilting top to obtain the desired position for abdominal operations. Until this time there were no operating tables made with tilting tops, and when Dr. E. D. Ferguson, surgeon at the Samaritan Hospital, Troy, New York, and Professor Bingham, of the University of Vermont, saw Dr. Barton's improved table, each wished to have one made by the Willsboro mechanic who was doing the work. A firm in Brooklyn, manufacturing hospital furniture, was given the privilege of making and selling the table, also.

The first major operation performed by Dr. Barton was done within a few weeks after he began practice. A man fell between two loaded coal cars on the railroad and had both legs crushed midway between the knees and ankles, so that a double amputation was required. The usual mortality in such operations at that time was 50 per cent, all the modern methods of treating shock, except morphia for the relief of pain, being nonexistent. Dr. Barton's patient was a healthy young Swede who fortunately recovered.

In 1891 appendicitis was not recognized as a disease entity except in some of the large cities. Cases of appendicitis terminated in one of three ways: spontaneous recovery, death of the patient from general peritonitis, called "inflammation of the bowels," or development of a walled-off abscess. Dr. Barton performed the first appendectomy in that part of New York State.

The surgical equipment given to Dr. Barton by his father was what was known as a general operating set, quite inadequate for many operations.

This equipment was increased by purchase and by the invention of other instruments by the young doctor. Essex boasted an expert blacksmith who could forge anything, a real instrument manufacturer. The blacksmith forged a complete set of retractors which Dr. Barton finished, polished by hand, and then had nickel-plated.

In 1891 and for years afterward, physicians were rarely engaged to attend patients during confinement, it being assumed that a doctor could be obtained if necessary, so that many deliveries occurred with no other attendants than relatives or neighbors. The administration of anesthetics was strenuously objected to, so that forceps deliveries were rare. It was due to Dr. Barton's experience with this type of case that he originated the Barton forceps, although he did not put the idea into effect until later. It was this instrument that made him famous all over the world, since it decreased infant mortality

in what is called "high transverse arrests" from 20 to less than 1 per cent.

The practice of medicine and surgery under the conditions described was carried on by Dr. Barton over a period of twenty-three years. During these years, in all surgical operations in the towns of Essex and Clinton counties, Dr. Barton as the attending physician administered the anesthetic and, except in one instance, Mrs. Barton was the sole assistant.

When the Champlain Valley Hospital was opened in Plattsburgh in 1910, Dr. Barton was asked to accept an appointment to the surgical staff with a three-month service each year. He accepted, and during the next two years commuted daily for three months between Willsboro and Plattsburgh, making many extra trips. He then moved to Plattsburgh and remained in practice there until his death.

In 1917 Dr. W. S. Buck, the radiographer at the Champlain Valley Hospital, went into the Army, and asked Dr. Barton to substitute for him in the x-ray department during his absence. Dr. Barton became so interested in the work that he kept up with the advances made in x-ray science and was asked to take charge of the x-ray department at the Physicians Hospital. He held this position for the remainder of his life, in addition to serving on the staffs of both hospitals.

As a result of the interest he had in mechanics, supplemented by the training received at Cornell, Dr. Barton was able to devise instruments and appliances for personal use and for the hospitals, both in Plattsburgh and elsewhere. These were as follows: an ether dropper, the salient feature of which was the use of a needle-valve by which the drop rate could be regulated to obtain the desired air-ether rate for any depth of anesthesia; a folding all-metal Balkan frame made of gas pipe by the hospital mechanics in the hospital shop to replace the old wood frame; the Barton obstetric forcep; a modified Kirschner clamp for use with Kirschner wire in the treatment of fractures of the long bones; a hand-operated drill with telescoping attachment for placing the Kirschner wire; a Rongeur bone forcep with multiple-lever construction, increasing the cutting power seven times; a Liston bone forcep with multiple-lever construction; a rib shear with multiple lever construction for single-rib resecting of all ribs including the first for thoracotomy; a self-retaining vaginal retractor; a uterine dilator; a fracture frame for the reduction and immobilization of beveled, spiral, and comminuted fractures of both bones of the leg; a drill guide for drilling an osteoplastic skull-bone flap at 45 degrees for suturing with rustless steel alloy wire; a forcep for twisting the wire at a desired tension; a skull tong for the treatment of fracture dislocations of the cervical spine by traction suspension. Some of the instruments were made in America and some in Germany, and were illustrated in manufacturers' catalogues.

Dr. Lyman Guy Barton, Sr., died in Plattsburg on November 21, 1944, five weeks after the death of his wife. Both are buried in the family plot in the Willsboro cemetery. An editorial in the *Plattsburg Press-Republican* at the time of Dr. Barton's death well expresses the loss felt by his friends and associates:

"Not only has Clinton County but all humanity suffered a distinct loss in the death of Dr. Lyman Guy Barton, Senior, whose barque of life drifted into that great unknown sea at his home in this city early yesterday morning. That his loss is keenly felt and deeply deplored was shown by the expressions of regret that were heard on every hand when the sad intelligence was conveyed. For more than half a century Dr. Barton had been active in the practice of that most unselfish of all professions, medicine, and not only that, but had he chosen to take his talents to the market places of the world, his name would have stood higher and on a different worldly plane among those whose lives have been dedicated to the benefit of humanity.

"The great career of usefulness that was Dr. Barton's has not ended in death, for he has passed on gifts of his inventive genius that will be used for all time for the benefit of mankind. His object in living was not to lay up stores of riches for himself, but to enrich the world with the priceless funds of knowledge which will go down through the generations. Behind his brusque but gentle manner and kindly speech he possessed a persuasiveness and forcefulness that fitted him for the accomplishment of great things —how great, time alone shall prove.

"Dr. Barton was a man for whom naught but good could be said. He has left this world a richer place because he was such an integral part of it."

CARLYLE ON HEALTH

The healthy know not their health, but only the sick.—*Thomas Carlyle, in Tuberculosis Clip Sheet, Dec. 1945*

CONGENITAL MALFORMATIONS AND BIRTH INJURIES AMONG THE CHILDREN BORN IN NEW YORK STATE, OUTSIDE OF NEW YORK CITY, IN 1940–1942

J. V. DePorte, Ph.D., and Elizabeth Parkhurst, S.M., Albany, New York

(Director and Senior Statistician, Division of Vital Statistics, New York State Department of Health.)

THE adage coupling child-bearing with child-burying epitomizes the experience of centuries and was not generally questioned until the development and application of what have come to be considered elementary measures, such as the pasteurization of milk, the protection of water supplies, and immunization against diphtheria, demonstrated the preventability of a great number of deaths in infancy.

Only a generation ago the natural increment of our population was decimated annually, one out of every ten babies born in the original Registration Area[1] dying from congenital insufficiency, disease, or accident before reaching the first year of life. Now the mortality in the same area has dropped to about one in every twenty-nine births. These figures are evidence of the remarkable progress which has made the American record one of the most favorable in the world. Theoretically, infant mortality has an irreducible minimum, but that further improvement is attainable, even in terms of our present medical knowledge, is demonstrated by the fact that in 1938, the latest prewar year, the infant mortality rates in Australia, the Netherlands, New Zealand, Sweden, and Switzerland were lower than in continental United States.

Most of the reduction in the infant mortality in this country has occurred among babies who weathered the first month of life. In New York State, for example, the neonatal mortality (under one month) was 41 per 1,000 in 1915 and 23 in 1942, a decrease of 44 per cent, while the mortality between one month and one year dropped from 57 to 9, or 84 per cent. Putting it in another way, in 1915, of every 100 babies who died before reaching the first year, 42 were under one month of age; by 1942, this proportion had risen to 72 per cent. It was, therefore, logical for individuals and organizations who were concerned with child and maternal welfare to direct their attention toward the causes of neonatal mortality, and especially congenital malformations and birth injuries. In this connection, it is of interest to quote from a statement by an eminent pediatrician, the late Dr. Henry L. K. Shaw:

"Our knowledge of the frequency and character of congenital malformations is very meager and inaccurate and is obtained mainly from death certificates and hospital records. The statistics so derived relate only to malformations which are associated with deaths in the first few weeks of life. For example, babies born with harelip or cleft palate do not die from the malformations and we have no reliable or definite knowledge of the frequency of these conditions. Congenital heart disease is, perhaps, more common than is generally accepted, but we have no reliable data from a large number of births.

"Obstetricians and pediatricians are concerned with problems of neonatal mortality and morbidity. Statistical study of all cases of malformation, both of those who live and those who die, would give us definite knowledge of the frequency, location, and character of such conditions. A study of birth injuries to babies born, not only in hospitals but in homes, might point out ways and means to avoid such accidents and materially decrease the present high neonatal mortality."[2]

To make possible a continuous study of congenital malformations and birth injuries, the New York State Department of Health placed on the reverse of the birth certificate the questions: Did baby have any: (1) Congenital malformation? . . . Describe. (2) Birth injury? . . . Describe.

The physician in attendance at the birth is asked to answer these supplementary questions with the understanding that they do not constitute part of the official certificate, will under no circumstances appear in certifications or transcripts issued by the Department, and that the information supplied will be considered confidential. It is gratifying to find that answers are entered on more than 90 per cent of the certificates, the proportion being equally high in urban and in rural places.

The purpose of this paper is to summarize briefly the data for infants born in 1940–1942. In this three-year period the Department received 300,795 certificates of live births, answers to the supplementary questions being given on 273,604 certificates.

[1] The area included the District of Columbia, New York, and nine other states in which the registration of births was at least 90 per cent complete.

[2] Health News, 17:30 February 19, 1940.

TABLE 1.—MALFORMATIONS AND BIRTH INJURIES RECORDED ON THE BIRTH CERTIFICATES OF CHILDREN BORN IN NEW YORK STATE, OUTSIDE OF NEW YORK CITY, IN 1940–1942

Children with congenital malformations or birth injuries	5,385
Children with congenital malformations	3,180*
Congenital malformations, total	3,635
Spina bifida	460
Hydrocephalus	152
Meningocele and encephalocele	68
Anencephalus	93
Other malformations of the central nervous system	39
Malformations of the heart	142
Other malformations of the cardiovascular system	4
Malformations of the digestive system	125
Malformations of the genitourinary system	52
Monstrosity	11
Hernia	54
Abdominal evisceration	40
Malformations of the head	6
Malformations of the eye	25
Malformations of the ear	23
Malformations of the nose	7
Malformations of the jaw	4
Achondroplastic dwarf	12
Osteogenesis imperfecta	5
Scoliosis and other spinal deformities	5
Torticollis	9
Congenital dislocation of the hip	4
Clubfoot	584
Other foot deformities	109
Deformed leg or knee	34
Deformed or underdeveloped hand or arm	82
Hand, foot, arm, or leg missing	29
Adactylism, polydactylism, syndactylism	278
Harelip, cleft palate	336
Congenital tumors	77
Hemangioma and nevi	79
Developmental defects of the external genitalia	264
Defects of the superficial tissues	130
Tonguetie	99
Cyanosis, cause unknown	39
Others and unspecified	155
Children with birth injuries	2,246†
Cerebral hemorrhage	370
Other head injuries (except forceps marks)	223
Fractures	169
Injury to the brachial plexus	128
Facial paralysis	297
Hematoma	113
Forceps marks, abrasions, contusions	721
Asphyxia	99
Others and unspecified	126

* 41 children also had a birth injury.
† 41 children also had a congenital malformation.

TABLE 2.—MALFORMATIONS AND INJURIES AS CAUSES OF NEONATAL MORTALITY AND AS RECORDED ON BIRTH CERTIFICATES

Cause of Death	Deaths Under 1 Month	Question on Corresponding Birth Certificate Answered	Child Had Malformation or Birth Injury	Child Had no Malformation or Birth Injury
All causes	7,638	6,818	1,376	5,442
Congenital malformations	1,209	1,103	666	437
Hydrocephalus	164	158	153	5
Spina bifida	159	151	145	6
Anencephalus	83	78	78	..
Other malformations of the central nervous system	47	41	36	5
Malformations of the heart	468	416	117	299
Other malformations of the cardiovascular system	5	5	2	3
Malformations of the digestive system	198	177	79	98
Malformations of the genitourinary system	20	19	10	9
Other malformations	65	58	46	12
Injury at birth	1,718	1,566	477	1,089
Intracranial or spinal hemorrhage	621	575	288	287
Other intracranial or spinal injuries	58	55	28	27
Other injuries at birth	1,039	936	161	775
Other diseases peculiar to the first year of life	4,073	3,588	194	3,394
All other causes	638	561	39	522

Table 1 shows the number of children on whose birth certificates appeared a statement of a malformation or a birth injury. Children with both a malformation and a birth injury, of whom there were 41, were counted under each heading. In a considerable number of cases more than one malformation was reported by the attending physician. This explains the difference between the number of children with malformations (3,180) and the number of distinct cases of malformation (3,635).

Of all the children who were born in the three-year period, 7,638 did not survive the first month. To measure the completeness of reporting and the recognition of the specified conditions at birth, the causes of death of these children were compared with the statements on the corresponding birth certificates. Answers to the question on malformation and birth injury were found on 6,818 of these certificates, *but were affirmative on only 1,376.* A comparison of these affirmative statements with the causes to which the deaths of these children were ascribed, arranged in International List order, appears in Table 2.

According to the death records, 1,209 children under one month died from a congenital malformation, and yet the question on malformations was answered in the negative on 36.1 per cent of the corresponding birth certificates. Failure

TABLE 3.—CONGENITAL MALFORMATIONS AND BIRTH INJURIES AS A FACTOR IN INFANT MORTALITY

	Deaths per 1,000 Live Births		Deaths 1 Month to 1 Year per 1,000 Children Surviving 1 Month of Age
	Under 1 Year	Under 1 Month	
All children born in 1940–1942	37	25	12
Children with no mention of congenital malformation or injury on birth certificate	32	21	12
Children with a statement of congenital malformation entered on birth certificate	356	280	106
Children with a statement of birth injury entered on birth certificate	232	223	12

TABLE 4.—REPORTS TO BUREAU OF MEDICAL REHABILITATION OF ORTHOPEDIC MALFORMATIONS AND BIRTH INJURIES AMONG CHILDREN WHO SURVIVED THE FIRST YEAR OF LIFE

	Number of Children Not Known to Have Died During the First Year of Life	Reported to Bureau of Medical Rehabilitation	
		Number	Per Cent
Total	1,206	243	20
Spina bifida and club foot	19	3	16
Spina bifida only	73	16	22
Club foot only	393	107	27
Harelip, cleft palate	254	76	30
Adactylism, polydactylism, syndactylism	214	10	5
Foot deformities other than club foot	64	8	13
Deformed or undeveloped hand or arm	41	4	10
Erb's palsy	88	14	16
Congenital dislocation of shoulder, elbow, knee, ankle	6	. .	. .
Hand, foot, leg, arm missing	16	2	13
Spastic paralysis	9		
Torticollis	7		.
Osteogenesis imperfecta	2		
Anchondroplastic dwarf	3		
Deformed or undeveloped leg, ankle, knee	10	.	..
Scoliosis and other spinal deformities	1	1	100
Absence of neck	1	. .	...
Atonic musculature	2	2	100
Klumpke's paralysis	2	..	...
Paralysis of left side	1		...

TABLE 5.—ORTHOPEDIC TYPES OF MALFORMATION AND BIRTH INJURY REPORTED TO BUREAU OF MEDICAL REHABILITATION BUT NOT RECORDED ON BIRTH CERTIFICATES

	Total	Question on Birth Certificate Not Answered	Question on Birth Certificate Answered		
			No Malformation or Birth Injury	Nonorthopedic Malformation or Birth Injury	Orthopedic Malformation or Birth Injury
Total	233	52	170	11	
Spina bifida only	8	4	4	. .	
Club foot only	74	19	54	1	
Harelip, cleft palate	22	9	12	1	
Adactylism, polydactylism, syndactylism	4	..	4	..	
Foot deformities other than club foot	27	5	22	..	
Deformed or undeveloped hand or arm	7	..	7	..	
Erb's palsy	34	7	24	3	
Hand, foot, arm, or leg missing	1	1	..	..	
Spastic paralysis	15	1	10	4	
Torticollis	23	1	21	1	
Osteogenesis imperfecta	1	..	1	..	
Deformed or undeveloped leg, ankle, or knee	6	3	3	..	
Congenital dislocation of hip	5	2	3	..	
Sprengel's deformity	1	.	1	..	
Hemihypertrophy	1	.	1	..	
Mild flexion contraction hip	1	..	1	..	
Atresia of choanae	1	..	..	1	
Narrow hip	1	..	1	..	
Not stated	1	..	1	..	

to recognize the condition at birth was proportionately greatest for malformations of the heart, the question on the birth certificate in regard to malformations being answered in the negative in 64 per cent of the birth certificates of the children whose deaths were ascribed to it. On the other hand, practically all cases of anencephalus, hydrocephalus, and spina bifida from which the children died were recognized and entered on their birth certificates.

The deaths of 1,718 children under one month of age were ascribed to birth injury, but on 63.4 per cent of the corresponding birth certificates the question in regard to injury was answered in the negative. The percentage of negative answers was 46.2 for intracranial or spinal hemorrhage, 46.6 for other intracranial or spinal injuries, and 74.6 per cent for all other types of injury.

On the other hand, 233 children with a malformation or injury recorded at birth died from a different cause: 194 from "other diseases peculiar to the first year of life," and 39 from "all other causes."

Further examination of the infant death certificates showed that, of the 3,180 children who were born in 1940–1942 with a congenital malformation, 1,132 died before reaching the first birthday, 79 per cent of the deaths occurring within the first month. Of the 2,246 children with a birth injury, 521 died within the first year, 96 per cent of the deaths occurring within the first month.

Table 3 shows the mortality under one year among all children who were born in upstate New York in 1940–1942, and among those with or without a congenital malformation or birth injury reported on the birth certificate.*

Thus, during the first month of life the mortality among children with a reported congenital malformation was thirteen times and among those with a birth injury eleven times that among children reported to have neither a malformation nor a birth injury. For the rest of the first year, children with a congenital malformation were still at a great disadvantage, the mortality among them being nine times as great as among children without a malformation or injury. The higher risk for children with a birth injury was concentrated in the first month; after the first month the death rate among them was the

* Although some of the children who were born in upstate New York may have died elsewhere before reaching the first year of life, the number could not possibly be large enough to affect the death rate appreciably.

same as among children without malformation or injury.

The Bureau of Medical Rehabilitation of the New York State Department of Health reviewed the statements on the birth certificates and segregated those which it considered as orthopedic.* A number of conditions which might become orthopedic, but which were too indefinite as described or might clear up more or less spontaneously, were excluded. Among these are lacerations or bruises, facial paralysis, and cerebral hemorrhage, which might or might not result in spasticity. Fractures were considered nonorthopedic and surgical—in other words, as acute cases which should be taken care of within a definite period of time. Growths also were excluded because of the uncertainty as to whether they might or might not result in orthpedic conditions.

This separation into orthopedic and nonorthopedic conditions does not necessarily differentiate between conditions which require orthopedic care and those which do not. The main reason for such a separation in this paper is to make possible a comparison between the statements on the birth certificates and the information obtained by the Bureau of Medical Rehabilitation from clinic and nursing services, schools, applications for State aid, and questionnaires sent at intervals to hospitals treating orthopedic cases.

Children with orthopedic malformations or birth injuries whose mothers were residents of upstate New York numbered 1,784; of these, 399, or 224 per 1,000, died within the first month and an additional 179, or 129 per 1,000 survivors, died before the end of the first year.

The Bureau of Medical Rehabilitation had reports on only 24 of the 578 children who died within the first year. Of the 1,206 children who were not known to have died, only 243, or 20 per cent, were reported to the Bureau. Their distribution according to type is shown in Table 4.

Among the indicated types of malformations or injuries with a frequency of ten or more, the reporting ranged from 0 for the deformed or underdeveloped leg, ankle, and knee to 30 per cent for harelip and cleft palate.

On the other hand, the Bureau had reports on 233 children with orthopedic defects which were not mentioned on the birth certificates: on 52 certificates the question on malformation or birth injury was not answered; on 170 the infant was stated to have no malformation or birth injury. The remaining 11 specified nonorthopedic defects. The distribution of the 233 cases according to type is shown in Table 5.

Summary

In 1940–1942 congenital malformations were reported on 3,180, and birth injuries on 2,246 of the birth certificates filed in the State of New York, outside of New York City. That many cases of malformation or injury were not recognized at birth or not reported by the attending physician is demonstrated by a comparison of the causes of death of children under one month with the statements on the corresponding birth certificates, and likewise by a comparison with the Crippled Children's Register. On this basis a minimum estimate of malformations would be twice and birth injuries four times the reported figures. The actual numbers are undoubtedly higher because of the unreported conditions which may disable or incapacitate the child but rarely, if ever, cause his death.

Congenital malformation multiplies by at least 13 the risk of a child dying in the first month of life and by 9 at one to eleven months. Birth injury raises the risk of death elevenfold during the first month, but has no effect on the mortality one to eleven months.

Public and private agencies had knowledge of 243, or only 20 per cent, of the 1,206 children with congenital malformations or birth injuries of an orthopedic nature who were not known to have died during the first year of life.

* Grateful acknowledgment is made to Miss Elizabeth Brezee, Assistant Statistician, for reviewing statements of malformation and injury on the birth certificates and classifying them into orthopedic and nonorthopedic conditions in accordance with the definitions and procedure of the Crippled Children's Register of the State.

"FERTILITY DIFFERENTIAL"

If you're interested, Census has a new and modest little document on the subject. Runs 265 pages. Weighs about a pound. And you can find out such tidbits as that "smoothed figures" in one of the tables "were computed by fifth difference osculatory interpolation"—and that women migrating from urban to rural areas are somewhat more fertile than women migrating from rural to urban areas. Report has something to do with the sociologic phase of the "war effort" probably—but Washington wags suggest it's Spring!—*Washington Closeup; March, 1945*

CLAMS

Harold Ickes (Interior) has taken over the mud in which the famous Ipswich (Massachusetts) steamers grow (for a bird sanctuary)—and the Essex County area is in an uproar. Biggest losers seem to be the hundreds of clam diggers now out of jobs—the thousands of steamed clam eaters at shore dinner joints along New England's coast (Ipswich clams were tops)—and one poor chap who seems to have been cut off from his privy by the rather arbitrary line which government surveyors cut through his property.—*Washington Closeup, March, 1945*

REHABILITATION OF DISCHARGED SOLDIERS

B. Liber, M.D., Dr.P.H., F.A.P.A., New York City

(Director, the Mental Hygiene Clinic, New York Polyclinic Medical School and Hospital)

THE Rehabilitation Plan in New York City was started by the War Department in July, 1943, at the Selective Service Headquarters and was discontinued on April 1, 1944, when it was incorporated into a larger agency, the Veterans' Service Center.

The original plan consisted of social workers and volunteer physicians and was connected with the United States Employment Office. In its present form the doctors work in about the same way.

Men who are inadequate for military duty and who have been discharged are questioned and examined by physicians, who decide whether the candidates for jobs are able to work, and if so what kind of work they are capable of doing. Diagnoses are made and recommendations are offered regarding the most suitable temporary or permanent occupation or training course. Often the exserviceman points out his own desire, and the doctor expresses his opinion whether the candidate's health condition permits him to follow his wish.

The military discharge paper never indicates the trouble from which the man has suffered while in the service and the reason for his discharge, except by symbols known to members of the medical corps only. He may have spent several months in a military hospital and may have been treated there successfully or unsuccessfully.

Service medical records may probably be obtained, if the above mentioned center could afford the time to wait for them, which it usually cannot.

In the first phases of conscription the discharge slip carried by the man bore the diagnosis naming the man's disease, physical or mental, which was unfair, as it often made it impossible for him to find employment.

The present method, consisting of not mentioning any disorder, is a forward step as far as the exserviceman's interest is concerned, but it makes the task of the rehabilitation physician more difficult. However, the examiner may learn of the condition from other sources—from the man himself, if he is intelligent enough, or from a letter from one of his officers to his family or to his civilian doctor, or again, from some certificate "to whom it may concern," recommending the dismissed soldier and saying approximately that, although so-and-so had to be discharged, he always performed his duties willingly, his conduct was fine, and he will be useful in civilian life.

When a diagnosis is mentioned or the exserviceman learns it, it is usually "psychoneurosis." This seems to be the favorite or most acceptable one to Army doctors.

The majority, almost the totality, of the discharged men have not had an opportunity to be sent abroad.

The largest number of cases are physical, and many have been caused by injuries or illnesses acquired in childhood or adolescence and have become more evident as a result of camp requirements or activities. Indeed, the rehabilitation office is swamped with those discharged men who doubtless were ill before entering the armed forces. One feels that the number of rejections or discharges could almost be halved if no errors had been committed at the induction end, which is an impossibility. Lately, since I have been working as an examiner at the induction center also, I can blame no one. Considering the brief time unavoidably allotted to the examiners in general, and especially to the neuropsychiatric interview, the work is magnificent.

Only about 10 per cent of the cause for discharge is mental, and it chiefly represents borderline disturbances or situations which are transitions between mental health and mental disease, and in which preventive work might have achieved a beneficial effect. The neuroses, of course, are prevalent and they are followed by the various forms and shades of schizophrenia. Then come the manic-depressive cases, which are more rarely encountered. The forementioned is merely an estimation, viewed from the position of a rehabilitation worker and not from the standpoint of the medico-military man, and perhaps not fully agreeing with official statistical figures as they exist.

I have not seen any mental defectives among the discharged men so far, probably because they are more easily detected and eliminated at the induction or preinduction examination, and therefore failed to enter the military services in large numbers.

A good many men who are not strictly employable, and who still suffer from disabling defects or ailments, clamor for jobs and implore the examiner to disregard their physical or mental condition. This is, of course, due to their economic circumstances and to the lack of security within their families.

Presented at the annual (centennial) meeting of the American Psychiatric Association, May, 1944, Philadelphia.

If I were asked how many are being rehabilitated, I would have to reply that it depends on the meaning of rehabilitation. If employability is the criterion—and that is the principal purpose of the Veteran's Service Center—I can safely state that the great majority have been returned to industry, although but few of those afflicted with illness of any kind have been cured.

The examples cited in this paper represent a sort of cross section of the mental conditions which have come to the attention of this examiner within the first eight months of the rehabilitation work.

Case Reports

Case 1.—Perhaps the simplest case was that of the boy who complained for years of a vague pain sometimes in one shoulder, sometimes in the other, although he performed his duty as a shipping clerk correctly. At least, his work was satisfactory both to himself and to his employer. When asked about his health, he had told the inducting physicians about his trouble, but they disregarded it, perhaps rightly so. However, his military unit tried for eight months to make a soldier out of him—unsuccessfully. There was no convincing somatic disorder. There were neurotic elements which colored the subjective feelings or complaints and which the Army called "psychoneurosis." But they did not interfere in the least with this man's resumption of his old civilian job.

Case 2.—A man who, on an unusual occasion, had a spell of what was called "nervousness" and tachycardia, was discharged. The latter symptom was not present at our examination and the impression was one of full adequacy. Notwithstanding his possible failure at camp duties and judging from our angle only, he apparently could still serve Uncle Sam, which he too desired. At any rate, he could be very useful on the home front, where he was kept.

Case 3.—A man complained of rectal or anal pain. Nothing abnormal was found by the military physicians, and at our service the findings were also completely negative. He talked loud, trying to convince us that there was a disease, and he claimed that the Army doctor had called it a "nervous rectum." We sent him to a clinic where psychotherapy was tried with some success, at least temporarily. Several weeks later his condition was still comparatively good, and he accepted the suggestion to find employment.

Case 4.—A young man, although always working and never missing a day prior to his induction, said that ever since he could remember he had been "nervous," often upset, and he woke up at night with a feeling that something in him was "jumping." Sometimes he was dizzy and "everything in his body was sick." There were other familiar complaints. In childhood he could not get along with his schoolmates or with the members of his family. At a later age the only place where he felt comfortable was his shop because there, due to the nature of his job, he happened to be more or less isolated from the other workers. He called his condition "emotional unbalance," and claimed that his Army doctor told him that he was psychoneurotic. As he didn't care to serve, he described his symptoms to the preinduction examining physician as elaborately as he knew how, which did not interfere with his being accepted. But he admitted that his description, though true, was too well rehearsed to be trusted. Later, however, the Army discharged him.

Case 5.—A man of 37 felt ill and entirely disabled during his military service, although the only so-called abnormality found was a systolic blood pressure of 100. He knew about it and it scared him. He may have been a genuine neurotic, but neither his past history, speech, nor behavior revealed it. The fact is that in civilian life he was as normal as the average person. He asked us for a job, obtained it, and worked satisfactorily from all points of view.

Case 6.—Another man hesitated in his speech and was slow in answering. He had been unable to follow orders or to do what was assigned to him. After some months in the hospital he was finally discharged. He had had the same mental disturbance before induction, but there was only his affirmation, as his behavior had been apparently normal. In civilian life, however, although not very sociable, he had been sufficiently adjusted and now, after his discharge, he could easily be sent back to work.

Case 7.—On the other hand, a man who, according to the official letters addressed to his wife, was suffering from paranoid dementia praecox, as diagnosed by a board of experts, denied this contention after his discharge and applied at our service for employment. Of course, he was referred to the proper institution for observation and, if necessary, for therapy, and, willy-nilly, he accepted our advice.

Case 8.—A boy of 21 functioned normally in every respect except that he was a somnambulist. No harm had ever resulted from that disorder, and he had failed to mention it to the inducting officers, perhaps intentionally. While that defect will not interfere with his ordinary life and no real rehabilitation effort was needed in this case, it was correctly regarded as a nuisance by the Army physician.

Case 9.—A patient suffering from a light form of manic-depressive psychosis, being primarily depressed, with a feeling of futility and self-depreciation, spent ten months in an Army psychiatric hospital before being discharged. He was exactly as disordered mentally as prior to his induction. But, during the recruiting process, as he was neither enthusiastic to join nor strongly disinclined from serving, he made no effort either way. Now, back in his old environment, while from time to time disabled, as a whole he managed to be semiadjusted and gainfully employed.

Case 10.—Next is a man whose defect, probably enhanced in the service, became evident after a few weeks among his comrades in camp. He was discharged because of his quarrelsomeness. He claimed that, while in his school years he frequently got into trouble, this did not happen at a later age, in civilian life, probably because his oc-

cupation consisted of responsible work in an office, and was more or less secluded

Case 11—One man was discharged because of spells of petit mal, so was another who claimed to have had fits since he was hit on the head in 1934 while boxing, which became worse after a 'sunstroke" in camp Both made a good adjustment in civilian life, being able to work as before induction, in spite of their slight attacks

Case 12—A boy in whom no demonstrable ear or other organic disorder could be detected was discharged because of tinnitus But, after a relatively long service, he had some difficulty in becoming rehabilitated or adapted to nonmilitary surroundings

As a rule men with irregular sexual feelings or neuroses shun military service and do everything possible to escape it, because they know they can get into trouble there Nor does the Army want them, but sometimes they are caught in the net

Case 13—One homosexual, seized in the act in the vicinity of a camp, had a trial, was jailed, and was later dishonorably discharged This, of course, did not interfere with his return to a civilian occupation although he had to find a new firm Nothing daunted, he carried on his habitual intimate life—as would be expected

Case 14—Another, accused of the same sexual offense, was treated more generously He was pardoned and honorably discharged His misdeed was called a malady, 'psychoneurosis," which seems to cover many mental defects and faults of behavior Nor did he have any difficulty in readjustment He rehabilitated himself both to the job we found for him and to his old routine

Case 15—One man was discharged for bronchial asthma after a short period in the Army, but he told the rehabilitation examiner that the Army had overlooked his most important disorder the fact that he "trusted nobody," and that he found it difficult to work in a shop because he was afraid of his fellow-workers Of course, he had never had any friends and never played He was sent to an appropriate clinic

Case 16—A boy of 19, who had finished high school before induction, had been discharged because he became "nervous" after having spent forty-five days at sea without seeing land He was sometimes 'depressed," sometimes "irritable," but primarily moody and brooding He lost his appetite and much weight He was discharged, but he regretted it, because of a complete change of his feeling and behavior as soon as he set his foot on terra firma Indeed, no trace of the described mental state was noticeable, and he soon went to work at his old trade

Case 17—One man, who had been well prior to recruitment, became ill a few days before he had to present himself to his camp and was taken to a city hospital He vomited his food several times and later he had hematemesis and black stools Transferred to the Army hospital at Camp Dix, he stayed there a few weeks and was then discharged He had no opportunity even to put on a uniform He was entirely well when he came to the rehabilitation office He confessed that he hated to think of serving in the first place because he had just got married, and loved his wife dearly Was this the cause of his authentic, acute, though apparently temporary organic illness, for which no real diagnosis was ever made? Did his mind contribute anything to his symptoms or to the cause of his sickness? Was it all mental? Or was his mental state only a coincidence?

Case 18—We cannot express the same doubts about another man with a definite stomach ulcer who had been treated for it for a long time, but had not been cured He failed to attract the inducting examiner's attention to it because he did not want to be rejected He became ill in the Army camp and, after considerable treatment in a military hospital, was discharged He came to us with the request that he be re-employed, but his condition was such that we could not recommend it He was referred to a hospital instead Further investigation showed that under ordinary circumstance he was "all right," as he had said, and that each attack came as a consequence of some strong emotional occurrence.

Incidentally, in our center we meet many men who have been discharged due to duodenal or stomach ulcers, and we have all read lately about the increasingly large number of such cases among servicemen There may be a good deal of truth in the appealing theory that this disease has much to do with the mental and emotional state of the soldiers But may it be permitted to a psychiatrist to suggest that the change in the eating habits and the amount of food—particularly the heavy protein alimentation—may have their share either in the causative or contributory—or in both—factors of this illness?

Case 19—In camp during service a serviceman fell down from a window and hurt his head No great physical trauma resulted, but from that event dated his mental abnormality, which was designated by the name "psychoneurosis" in the Army, and which should be more correctly called nosophrenia—that is, a mental state preoccupied with illness This caused him to be discharged As soon as he came back to civilian life he readjusted himself and this center recommended him for a job

Case 20—Another boy, who apparently had always been well, became "nervous" and "mentally affected," because one of his friends was killed in the camp by a truck It seems that this other man, very tired on a hot summer afternoon, lay down and fell asleep in front of the truck, in its shade At 2 00 A M the vehicle, driven away in line of duty, went over his body and killed him—an extremely rare and unprecedented accident From that day on our exserviceman was nervous and depressed He was sufficiently ill to be interned in a military psychopathic hospital, where he stayed several months Then he was discharged Once out of

the Army, he recovered completely and was ready for a job.

Case 21.—The following case, the only one not taken from the rehabilitation center, is probably typical of many thousands. A man of 22 was a private who, after insulting and threatening his sergeant, had been dishonorably discharged. He seemed mentally normal and, despite our temptation to do so, the incriminating incident apparently could not be explained by any chronic disturbance or inherent tendency to a mental disorder. He had enlisted and served for two years. After leaving he regretted his conduct and the entire incident. He lived with his parents who were poor workers, and, although he did not want to be their parasite, as he put it, and although in the past, from the age of 16, he had always earned what he needed, now he could not muster the courage to go out and find a job. He felt bewildered, he said, as if he had received a real blow on his head and could not recover from it. Somehow he did not belong. He was a stranger. Anybody had the right to ask him what he was doing among civilians. True, this may indicate a schizoid trend that may have become more pronounced as a result of circumstances, but, from all our data, it had never manifested itself previously in a visible manner at all.

This is a state of mind encountered at present, in wartime, in many other—even honorably—discharged men under 25 and also among those rejected at induction. What has happened inside them? Except in the very practical individuals who think of nothing but their business and are glad to be back among their people, these boys are ashamed and perhaps also afraid. They, who ordinarily were sociable persons, suffer from a deep feeling of inferiority, of inadequacy, a lack of adjustment, a lack of sociability, partly because they are changed, but largely because the social background and the public opinion are different. Another important factor may be that these exservicemen had been too long under the influence of a modified environment and under superior protection to quickly bounce back into their old place in civilian society and readjust themselves there to greater personal responsibilities. At any rate, they are certainly in distress and in need of help and encouragement. The great majority are curable.

At our rehabilitation service, so far, we have seen but few men returned after participation in action on the various fronts. Each time they came they expressed a desire to go back to the battle areas.

Case 22.—One 20-year-old Jewish boy from New York's lower East Side, whose ship was torpedoed in the Mediterranean and who sustained a number of shrapnel wounds and a bad burn, was still limping with the aid of a cane, but was unhappy to be discharged. He had not seen a real battle. He had only spent ten days on a raft, together with thirty other men, until they were rescued. But now, not being allowed to return to the danger zone, he wanted an opportunity to learn a trade.

Case 23.—Another boy, 23, of Irish extraction and born and raised on the West Coast, had lived a year in New Guinea and was loud in his protests and angry at the authorities for his discharge. He did not care to admit that he had become quite ill in the tropical regions, and that he was not cured yet. All his pals were still there. He had not done a thing for his country. Could the examiner not help him to be reaccepted?

There are, by the way, patriotic and pseudo-patriotic reasons why men are eager to serve at any cost and why they will go out of their way to achieve their aim. This is not the place to go into that. I have made this matter the subject for another study. The mental state of such individuals may be normal or abnormal. But their insistence or enthusiasm does not correspond to the attitude of the ordinary serviceman, especially those over the age of 25—for that matter, not even to that of the average person in his family. The usual comment is simply this: "We don't like it, but when called, we must go and we might as well finish the job."

55 West 95th Street

MEDICAL MEN HONORED FOR CONTRIBUTION TO SAFE CHILDBIRTH

Two medical men, from diverse fields, have been honored by the Planned Parenthood Federation of America for their part in making childbirth more healthful, safe, and secure for American mothers.

Two $500 cash awards of the Albert and Mary Lasker Foundation were presented to Dr. John MacLeod, of the department of anatomy, Cornell University Medical College, and to Dr. Felix J. Underwood, executive officer of the Mississippi State Board of Health, at the Federation's twenty-fourth annual meeting dinner in the Waldorf-Astoria, New York, on January 24.

Dr. Richard Pierson, one of New York's leading obstetricians and chairman of the Federation's Medical Committee, presented the cash prizes, with a plaque and scroll, to the two men.

The award was given to Dr. MacLeod for his scientific research in the motility of human sperm cells—which should prove valuable, after further study, in the correction of infertility and the control of fertility in human beings. Dr. Underwood was cited for his state's expanded maternal health program, which includes planned parenthood as an integral part of its public-health service.

AN OUTBREAK OF EARLY SYPHILIS IN WESTERN NEW YORK STATE

BERWYN F MATTISON, M D , M P H ,* Kingston, New York, and
EARLE H HARRIS, M D , M P.H , Geneva, New York

(District Health Officer, Kingston, New York, and Assistant District Health Officer, Geneva, New York)

SINCE the early days of the present war reported cases of early syphilis have been increasing, especially among the "teen agers" and young adults Sometimes the value of intensive contact investigation of these cases, especially when no lesions are discovered, has been questioned The small outbreak to be described is an example of how productive such investigations may occasionally be when all agencies involved cooperate wholeheartedly

In December, 1942, two young men sought medical advice from private physicians because of genital lesions One was working in the city of Rochester and, after a diagnosis of syphilis was made by a positive darkfield examination, was reported immediately to the Rochester Health Department and in turn, as his residence was outside its jurisdiction, to the district state health office The other, in a rural area some 50 miles away, was similarly diagnosed and reported to another district state health office

These two patients, together with a friend of the first patient who subsequently sought care for a similar lesion, were interviewed regarding sexual contacts which had occurred during the sixty days prior to the onset of their symptoms as well as those which had occurred subsequent to onset of symptoms Altogether they named four contacts, one of whom had been previously known as promiscuous When she was interrogated, information leading to the identification of four others was secured All of these eleven persons were brought under medical supervision and nine were found to be infected, i e , seven in addition to the two original patients

Meanwhile, an apparently unrelated investigation was being carried on by the Rochester Health Department Thus followed the discovery of two other early cases through pre-employment serologic tests in a large industrial plant A total of seven recent contacts was discovered here, one of whom led back to the group which had been found earlier

These contacts were again outside the city, and the information was turned over promptly to the district state health office By interviewing this second group a final total of twenty five persons was named, of whom all but two were located and brought under a doctor's care (see fig 1) The results of their medical check-ups are given in Table 1 Only four of the twenty-three located had not been infected, and of the 19 cases discovered only one was not a recent infection All diagnosed cases were immediately placed under treatment and later followed regularly to prevent delinquency

TABLE 1.—RESULTS OF MEDICAL EXAMINATION

All Named Contacts	Total 25	Male 14	Female 11
Infected with early syphilis	18	9	9
Infected with late syphilis	1	1	0
Not infected	4	2	2
Not located	2	2	0

It is of particular interest to consider the way in which these patients came to be examined at the time a diagnosis was made Table 2 reveals that only about two thirds were prompted to see a doctor because of symptoms (11), while one third sought care after the urging of the epidemiologist (6), and two were picked up through routine industrial examinations

TABLE 2.—REASONS FOR EXAMINATION LEADING TO A DIAGNOSIS OF SYPHILIS

All Causes	Total 19	Male 10	Female 9
Symptoms	11	8	3
Contact investigation	6	2	4
Routine	2	0	2

This emphasizes again that not all patients with early syphilis will note their symptoms and that even patients with recognizable symptoms may not seek medical advice because of them For, although 9 of the 10 male patients had either genital or skin lesions (the tenth case was of over a year's duration), only 5 of the 9 women had any such history None of the latter had recognized genital lesions, merely secondary rashes And 8 of the 19 might have failed to see a physician at all had it not been for the contact investigations and the routine pre-employment examinations

Discussion

Our present concept of the maintenance and spread of syphilitic infection is one of small, interconnected epidemics, usually involving one or more promiscuous persons who serve as focal points The need for investigation and control of these more flagrant cases is obvious However, it is not always so apparent why similar

* Assistant District Health Officer Rochester New York at the time the investigation was reported

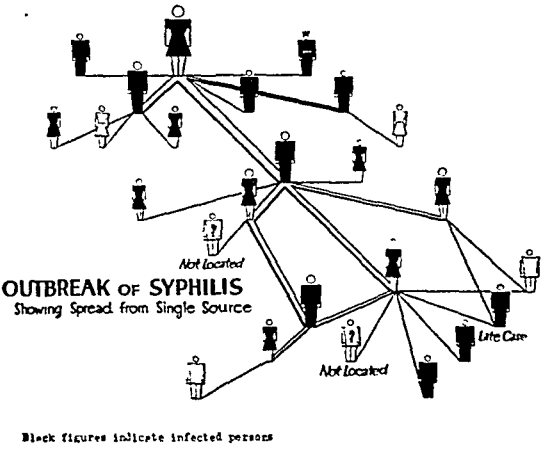


FIG. 1

investigation should be carried out on the isolated patient, known not to be promiscuous, who is being treated in the doctor's office or clinic.

In this latter instance an interrogation of the patient regarding his probable source of infection and subsequent contacts may prove much more important than the rather meager information at first implies. For, like a small piece of a jigsaw puzzle which gives the key to placing several other larger pieces, the naming of one other infected person may lead directly to the location of several.

Assembling the complete picture of a localized outbreak such as the one here reported is necessarily dependent on prompt and accurate reporting by the private physician. It is not always easy to determine the stage of disease in the absence of current genital or skin lesions, yet on this point must depend our estimate of the degree of infectiousness and the approximate date of infection. A careful history regarding genital and oral sores, rashes, and dates of sexual contact will frequently help. In the absence of any such history, a previous negative blood test (premarital, prenatal, employment, induction, routine hospital, etc.) within a year or two preceding a positive test may provide the necessary clue.

The diagnosis of congenital syphilis in the adult simply because there is no history of a recognized lesion or because the patient denies sexual relations on his first interview is extremely hazardous. Unless characteristic stigmata are discovered or a definite history of parental infection is secured, we probably should assume that the disease is acquired. Not only contact investigation but treatment regulation must be based on the correct diagnosis of the type of infection.

The private physician, industrial physician, local and state health departments must all work together to secure the best results for community and individual patient. Prompt, accurate reporting of cases and intensive epidemiologic investigation can be expected to get more infectious cases under treatment earlier, thereby decreasing the hazard to the community as well as improving the future outlook of patients who might otherwise have come under treatment later or not at all.

SNACK CARTS—A NEW IDEA IN SCHOOL FEEDING

The school feeding program in the City of Vanport, Oregon, is believed to be a factor in speeding production in this shipbuilding community. Children of workers are well-fed and well-cared for, enabling labor to stay on the job regularly over long periods of time.

Describing the program in *Nutrition News*, Miss Elsie Maxwell states that in Vanport, where she directs child feeding in the city schools, parents are away from homes for many hours a day or sleep at unusual hours. Houses are crowded, and cooking, refrigeration, and storage facilities are very limited.

These irregularities throw a heavy responsibility on the schools to provide rest, food, study, and play for unusually long hours as well as night care and meals for children of night workers. Several schools open at 6 A.M. and serve a hot breakfast to children. Light morning lunches, balanced noonday lunches, and afternoon snacks are served in all schools.

Each day beginning at 2:15 P.M., snack carts filled with fresh nutritious sandwiches, fruits, ice-cream bars, milk, and fruit juices, go into the school rooms. All items are priced five cents and children are permitted to buy whatever they choose. The majority select one item, many buy two, and a few rely on snack-cart offerings for a complete afternoon lunch.

Although there are no statistical data to prove the value of this feature, according to Miss Maxwell the abundant vitality and outward appearances of good health and growth of the children have led to the assumption that much is derived from it in terms of nutrition. It has reduced after-school loafing at nearby pop and hot-dog stands and drug stores, and the small margin of profit has helped to balance the budget which is somewhat out of line with that for the usual school lunches. Finally, there is the satisfaction of knowing that no child goes home hungry for lack of nutritious food.—*Health News, Jan. 29, 1945*

METALS OF MEDICAL IMPORTANCE USED IN THE AVIATION INDUSTRY

W D Schmidt, M D , Smithtown Branch, New York

(*Plant Physician Republic Aviation Corporation, Farmingdale, New York*)

AVIATION industry does not offer anything new in industrial hazards but, rather, a new combination of hazards which, due to the tremendous development of this industry during the last year, have become of importance to the general practitioner, who heretofore had no particular opportunity to take an interest in occupational diseases

Such terms as "dural poisoning ' are being used today, and unfortunately so, by physicians in general practice all over the country wherever planes are being built There is no such disease as "dural poisoning " and still this diagnosis is being made by nonindustrial physicians every day To me, the explanation for this is as follows the private practitioner has too little opportunity to familiarize himself with hazardous conditions in industry, and the information given to him through the channel of medical journals about industrial poisons does not arouse enough of his interest because it fails to show the practical importance of such poisons

Airplane manufacturing generally is assumed to be a metal industry, although it is less generally known that it also employs a great number of nonmetallic substances, such as plastics, fabrics, synthetic rubber, organic solvents, and many others Metal however, does play a predominant part, and therefore an attempt will be made to familiarize the general practitioner with the more important metals used in this industry, some of which may be of toxicologic importance

Up to very recently, only lead was recognized generally as a cause of occupational disease There is no doubt about the fact that lead is the most important of all toxic metals, although a considerable number of other metals are steadily gaining in importance as causes of industrial pathology

The ever increasing use of alloys has somewhat confused the picture and has made it difficult at times to attribute certain pathologies to one definite constituent Very often the toxic effects of one metal overlap the pathology caused by another metal constituent of the alloy, and possibly one metal potentiates the action of the other

Another complicating fact is that the same metal may, according to the physical or chemical state it is in, behave quite differently It appears that most metals are quite innocuous in the solid phase but are much more toxic in the gaseous phase, which would explain the fact that they cause systemic effects, mainly via the respiratory tract

When alloys are heated, those constituents with the higher vapor pressure may reach a greater concentration in the surrounding air than those with the lower one, even though their percentage in the alloy may be so small as to make them appear insignificant from the toxicologic standpoint as compared with the main constituent of the alloy

The salts of the metals, again, behave quite differently from the pure metals, which should not be astonishing inasmuch as they are really new substances with chemical characteristics of their own, which have nothing in common with either the acid radical or the metal ion entering into the formation of their molecules, just as table salt has the properties of neither chlorine nor sodium For this reason, I believe that the universally accepted method of testing for skin allergy for a certain metal by patch testing with a solution of one of its salts, for example, for nickel with nickel sulfate, has no scientific basis

Last the recognition of metal poisoning may be quite difficult inasmuch as most metal-fume poisonings manifest themselves with symptomatologies similar to common nonindustrial diseases

The following is a list of the metals and alloys most commonly used, giving their approximate composition

1	Stainless steel	18 per cent chromium 8 per cent nickel 73 per cent iron and less than 1 per cent carbon
2	Chrome molybdenum steel	Chromium molybdenum iron carbon percentages not known
3	Alloy 24-S	4 5 per cent copper 0 6 per cent manganese 1 5 per cent magnesium 93 4 per cent aluminum This alloy also called Alclad is covered on both surfaces with a layer
4	Alloy 2 S	
5	Alloy 5%-S	5 per cent magnesium 0.25 per cent chromium 97 5 per cent aluminum
6	Lead	Lead with a mixture of zinc Also as lead chromate
7	Kirksite	Zinc (mainly), aluminum copper magnesium
8	Cerrobend	Low melting point alloy containing 13 per cent antimony 87 per cent lead This is now being used in place of matrix an alloy which also contained cadmium

9.	Solder	60 per cent lead, 40 per cent tin
10.	Brazing wires	Principal components, copper and zinc
11.	Cadmium	Pure, as electrode in cadmium-plating and on cadmium-plated parts
12.	Chromium	As component of stainless steel and alloy 52-S, also as chromates, bichromates, and chromic acid. Sometimes as constituent of welding rods
13.	Magnesium	Pure and as component of alloys
14.	Zinc	As zinc chromate, and as constituent of kirksite, brass, brazing wires
15.	Copper	Zinc
16.	Brass	Alloy of copper and zinc

Pathology Caused by Metal Contact

The manifestation of clinical significance is contact dermatitis. Various metals have been reported as causes of contact dermatitis. Mercury, nickel, silver, antimony, zinc dust, and brass dust are accepted causal agents. Recently there has also been reported a "bronze-itch" due to magnesium-aluminum alloy.

Among the above-mentioned agents the following are being used in the aviation industry: nickel, as a constituent of stainless steel; zinc, as a constituent of "kirksite" and brass; brass; and magnesium-aluminum alloy, which may be either alloy 24-S (alclad) or alloy 52-S (dural), or "kirksite," all of which contain magnesium and aluminum.

We cannot help but feel, however, that these metals have, if any at all, only little significance as causative factors, since we had the opportunity to see hundreds of patients with dermatitis in this industry and were unable to find one who would show a positive reaction to the metal he was exposed to when patch-tested. One patient was found to be allergic to nickel sulfate but failed to give a positive reaction to metallic nickel or stainless steel. They will, however, have to be considered as potential causes of occupational dermatitis. A diagnosis of occupational dermatitis from any of them should only be made if patch tests with the suspected metal are positive and reproduce the typical lesion of the dermatitis from which the patient is suffering.

As far as the so-called "dural poisoning" is concerned, we were never able to arrive at such a diagnosis and in each case so diagnosed by the family physician we obtained negative patch tests with dural. Such dermatitis is usually caused by a great number of nonmetallic substances, both on and off the job, which may be, in some cases, zinc chromate used as pigment in spray paint, or so-called "fish oil," used as protective covering of metal sheets, or toluol, xylol, carbon tetrachloride used as cleaning and degreasing agents, etc.

The physician should ascertain the following diagnostic facts before making the diagnosis of occupational dermatitis:

Requisites: 1. The lesions appear at the point of maximum exposure and remain limited to the skin surface exposed.

2. There is actual exposure to the antigen at the time of the first appearance of the lesions.

3. Removal from the place of exposure should improve the condition and renewed contact should make it worse.

4. Patch test performed with the suspected agent should be positive and reproduce the typical lesion at the site of the test.

The following is a list of the more common substances used in the aviation industry capable of causing dermatitis:

1.	Chromates	Zinc chromate (in paint and sealing compound for gas tanks); dichromates (in chromate dip and sealing compound); chromic acid (in anodizing tank and chrome plating)
2.	Solvents	Toluol (paint, "wash-thinner," rubber cement, "bluing," etc.); xylol (in toluol *substitute, same as toluol);* naphtha (in toluol substitute, thinner for paint, in "Safety-Kleen" used in magnaflux, and in "wash-thi[illegible] "bakelite seaming [illegible] (in magnaflux and [illegible] and butyl acetate (in thinner for paint, dope, and lacquer); methyl-ethyl ketone (in thinner for paint); carbon tetrachloride; and trichloroethylene (in cleaning and degreasing operations)
3.	Oils	"Fish oil" (on dural sheets); cutting oils and oil emulsions (on machine operations); hydraulic oil; lubricating oil and grease
4.	Fumes	Nitrates and nitrous gases (welding and heat treat); fluorides and hydrofluoric acid fumes ("flux" in welding); cyanide and hydrocyanic acid fumes (cyanide heat treat and cadmium plating); chromic acid fumes (in "anodizing" and chrome plating)
5.	Acids	Hydrofluoric acid (flux in spot welding); chromic acid ("anodizing" and chrome plating); hydrochloric acid; nitric and sulfuric acids; acid fumes, as mentioned under fumes
6.	Metals	Zinc (in kirksite); nickel (in stainless steel); magnesium; dural (?)
7.	Resins	Plastics of all sorts; bakelite (in bakelite seaming compound and in paint); resins, other synthetics (in paint)
8.	Soaps	Cleansing soaps, particularly liquid soap and boraxo; oakite and wyndotte for degreasing; kelite, for degreasing; protective creams, if containing soap

For practical purposes, it is advisable to skin-test regularly unless the history gives a lead to some specific substance, with the following substances rather than with the individual component:

1. Paint, wet (primer and camouflage paint)
2. Paint, dry (primer and camouflage paint)
3. Dural, small square of metal, plain
4. Dural, small square of metal, covered with "fish oil"
5. Cutting oil
6. Oil emulsion
7. Wash-thinner
8. Carbon tetrachloride
9. Liquid soap

Different from contact dermatitis is the type

of pathology caused when metal penetrates into or under the skin, that is, when it causes a laceration or when retained in the tissues as foreign body or when metal dust is deposited into the depth of an accidental wound, in which case we would not deal with a plain allergic reaction of the skin but rather with a complex reaction due to trauma, possible bacterial contamination, foreign body reaction, chemical interaction between the metal and the tissue fluids, and possibly also an allergic factor The typical example of this type of pathology, and so far the only one known, is the reaction due to intracutaneous or subcutaneous penetration and retention of magnesium whereby a severe local inflammation is caused which shows a tendency to spread very much like a bacterial infection and which, sometimes, will go over into a chronic type of indurative inflammation with occasional acute flare-ups

This reaction has been reported quite often of late and goes under the name of "false gas gangrene" and is thought to be due to a chemical reaction between the metallic magnesium and the tissue fluids, with resulting liberation of gaseous hydrogen which will collect under the skin or mucous membrane in the form of gas bubbles

Judging from the chemical nature of magnesium, the occurrence of such pathology should not amaze us It would seem more amazing if other metals than magnesium such as aluminum, cadmium, and chromium, which occupy positions in the electromotive series of the metals very close to magnesium and which share its chemical instability, its tendency to replace hydrogen from its combinations and to form salts should not cause similar pathologic reactions No such occurrence has been reported yet, however

I also feel that there may be such a disease as "scratch dermatitis," i e , an allergic reaction of the skin due to introduction of an allergen which of course, may also be metal, into the skin by means of one or multiple scratches, in which the diagnostic patch test would not be conclusive It may be advisable to combine a scratch test with a patch test in cases when workers claim that their dermatitis started with metal scratches which became irritated and spread from there and in which the simple patch test is negative Such a "scratch-patch test" may throw an entirely different light on the existing pathology and certainly re-enacts more closely the actual conditions under which the contact with the allergen occurred

Chromates

Metallic chromium in its solid phase has probably very little toxicologic importance, although it might seem logical to assume that in some rare cases it could become the cause of a skin allergy, i e , dermatitis, similar to nickel dermatitis While chromium itself is inert, its salts, the so-called chromates, as well as dichromates and chromic acid, have an important position among those substances used in the aviation industry which are capable of causing serious pathology of skin and mucous membranes Chromium is used in four forms

1 Chromic acid, as electrolyte in "anodizing" and chrome plating

2 Zinc chromate and lead chromate as pigment in paints and as chromate dust on painted parts

3 Dichromates in the so-called "chromate dip" (treatment of cadmium bolts) and as component of "sealing compound" applied to gas tanks

4 Component of alloys, such as stainless steel (18 per cent chromium), chrome-molybdenum steel, and aluminum alloy 25-S (25 per cent chromium) Occasional constituent of welding rods

The ill effects of chromium appear to be limited to certain local reactions, except for the rare occurrence of fever and nephritis which have in some cases been blamed on chromium There also appears to be some controversy about causal relationship between lung cancer and chromium exposure Two main reactions occur

1 "Chrome-holes," which are slowly developing ulcers of skin and mucous membrane, with their site of predilection the exposed surfaces of hands, forearms, and face and the nasal mucosa (perforated septum without syphilis)

2 Allergic reactions dermatitis, asthma

If, in anodizing and chrome plating, the handling of parts is done by mechanical means and if the electrolytic tanks are adequately exhausted, the danger from contact with chromic acid should be minimal Nevertheless, workers do get chromic acid on their skin Since the ulcers develop slowly and often quite painlessly, the workers are convinced that the substance is harmless, and when the skin lesions occur, they are not, as a rule, blamed on the acid If fumes should escape from the electrolytic tank, in spite of the exhaust, the workers will complain about frequent nose-bleeds and they may develop ulcers of the nasal septum

Dermatitis is the most frequent pathology and can be quite disabling Considering the extent of exposure to the chromates and dichromates in the aviation industry, it seems amazing that the frequency is not greater than it actually is The explanation is probably this The majority of the workers have been working with these substances only for a short time and will become sensitized to the chromates only after prolonged

exposure, i.e., after three to six months or more. Therefore, more and more cases will have to be expected to occur in the near future. A contributory factor in the causation of dermatitis from zinc chromate and lead chromate is the defatting action of the solvents used in paint sprays.

As protective measures, this industry is using adequate exhausts and protective creams and clothing.

It also advises the use of plain vaseline in the nostrils of the workers exposed to chromic acid fumes and generally encourages greater personal hygiene, which is one of the most important factors in the prevention of dermatitis from the chromates.

Patients who have been found to be allergic to the chromates should not be exposed to this agent in the future unless properly protected. If the manifestation of the allergy was asthma, they should not be permitted to return to this exposure at all.

Systemic Metal Poisoning

The route of absorption of almost all metals is the respiratory tract, while the skin and the gastrointestinal tract play a negligible role as ports of entry.

In order to be absorbed through the respiratory tract, the metal has to be in the gaseous phase, i.e., in the form of a vapor. Poisoning may be acute or chronic. The typical representative of the acute form is the so-called zinc-fume fever, also called "brass-founders' chills," which is caused by zinc fumes, while the prototype of the chronic form is lead poisoning.

Metal-fume diseases have in common the characteristics of simulating nonindustrial diseases, such as a respiratory infection, in acuteness and lack of permanent changes. Lead poisoning and other chronic metal diseases, of course, are an exception to this rule. The fact that they show symptomatologies similar to those of common illnesses often makes it difficult to suspect and diagnose them, particularly if they occur during an epidemic of illnesses such as, for example, during a grippe epidemic.

Zinc.—Zinc is being used in the aviation industry in the following forms:

1. Zinc chromate, as pigment in the "primer," i.e., in the paint shop and wherever painting or paint spraying is done as well as in the processing of painted metal, in powder form.

2. As a constituent of kirksite, i.e., in the foundry where kirksite is melted and poured, in the grinding room where kirksite dies are ground and polished, and on the drop hammers where the dies are installed and used.

3. As constituent of brass, i.e., where brass pipes are worked upon.

4. As constituent of brazing wires, i.e., wherever brazing is done.

5. In electroplating where metals are plated with zinc as well as wherever zinc-plated metal is being cut or welded upon, as, e.g., if welding is done on galvanized pipe.

Zinc Fume Fever.—The symptoms are acute intoxication of short duration, i.e., twenty-four hours, rarely longer, and without permanent aftereffects or lasting disability. The symptomatology is as follows: severe chills, fever up to 102 F., irritation of the respiratory tract, causing dryness of the throat and a dry cough, nausea, headaches, and aches and pains in arms and legs.

This may be, and probably very often is, confused with a grippal attack, from which it can be differentiated, however, by the marked leukocytosis associated with this disease. This hazard is very actual in the foundry wherever brazing is done and wherever welding is done on galvanized material. Zinc dust, such as will be found in the foundry polishing room, may cause an aspecific irritation of the upper respiratory tract but will not cause systemic pathology.

Recently, there has been reported one case of unquestionable zinc allergy (dermatitis), confirmed by positive skin test, but this is probably a rare occurrence. If zinc is able, however, to cause dermatitis, it may also be capable of bringing on an allergic reaction on the mucous membrane of the upper respiratory tract, and I therefore believe that this zinc dust may become in some cases the cause, or at least an aggravating factor, of bronchial asthma.

Magnesium.—In the aviation industry a considerable amount of magnesium is being processed, both as plain metallic magnesium and as a component of such alloys as aluminum alloy 25-S (dural), alloy 24-S (alclad), and kirksite. Its toxic possibilities are four:

1. Pathology caused by retention of magnesium as a foreign body in and under the skin and mucous membrane, described above

2. Pathology caused by contamination of accidental injuries with magnesium dust, described above

3. Magnesium-fume fever, an analogue to zinc-fume fever. This is caused by exposure to molten magnesium and operations where magnesium oxide is formed. As a rule, magnesium is not poured in factories which only assemble planes and, therefore, it is not a hazard in the aviation industry except for one operation, i.e., magnesium welding. Since, however, the welding of magnesium is dangerous from the fire-hazard standpoint, it is usually done by only a limited number of very experienced welders and, therefore, the possibility for the development of

this disease is limited to a very small number of workers

Kirksite, of course, is being poured in this industry The magnesium content of this alloy is very small, however, in comparison to its zinc content The magnesium content of dural, which is 2 5 per cent, makes welding on this alloy harmless, at least from this angle

4 There have been reports suggesting magnesium as cause of abdominal cramps due to gastro-enteritis and of loss of weight and appetite

Cadmium —Solid cadmium also probably has very little toxicologic importance Its fumes, on the contrary, are extremely toxic

Cadmium-plated parts are examined for defects with the help of a magnetic device, the so-called "magnaflux," and when found defective, these parts have to be rewelded Such repair should be made only after "stripping" the cadmium from the parts by such methods as "sand blasting" or by a better method, dipping into hydrochloric acid In the hurry of high geared production, this stripping is often not done The rewelding is done on the still cadmium-coated parts, with resulting formation of heavy clouds of cadmium fumes which have a severe toxic effect when inhaled by the worker Such effects may be so severe as to cause sudden death, or if less so, may cause such symptoms as excruciating retrosternal pain, distressing cough, dryness of the throat, nausea, and vomiting I have had the opportunity to observe this symptomatology twice

The pathology which cadmium is capable of producing is reported to be the following edema and congestion of the lungs, hemorrhages into the lungs, chronic interstitial pneumonitis, damage to kidneys, spleen, and pancreas

Metal Fumes in Welding

Three types of welding methods are being used in this industry, namely, spot welding, gas welding and arc welding

1 Spot welding is of small toxicologic importance, since it produces a minimum of fumes and since, as a rule, no flux is employed in this operation It is done with the aid of a machine, employing high pressure and a current of high amperage

2 Arc welding is the fusion of two metals in the heat produced by an electric arc between the welding rod on one side and the metal to be welded on the other side This arc is created by a current of high voltage "Fluxes" are used in this operation for the prevention of oxidization of the metal surfaces and may be employed in any of the following three forms

(a) Application of the flux to the metal to be welded in paste form
(b) Dipping of the "rod" into a container with flux before use
(c) Coated "rods" In these, the flux has been applied to the rod before its purchase In arc welding, this is the prevalent method, while (*a*) and (*b*) are more commonly employed in gas welding

Prime function of the flux, in whatever form it may be used, is to provide a gaseous shield about the arc and the "weld" in order to prevent oxidization, and also to form a protective "slag" to cover the new weld Fluxes used in aluminum welding are mainly fluorides, while the coating of the welding rods may be any, or a combination of several, of the following substances silicon and titanium dioxide, aluminum, calcium, and magnesium oxides, iron, manganese, and calcium fluorides, and barium and calcium carbonates

Besides these inorganic compounds, any of the following substances may be used to bind the flux to the rod asphalt, rubber, resin, varnish, casein cellulose, and ethyl and sodium silicates

The welding rods themselves are mostly ferrous However, to make up deficiencies in the rod, in relation to the metal to be welded, substances such as manganese, chromium, and lead may also enter into the coating It is evident that all these substances are producers of fumes, some of which are highly toxic

Potential sources of injury from arc welding

(*a*) Generation of metal fumes These are the ones this paper is mainly concerned with Metals to be welded and welding rods are partially or totally volatilized under the heat of the arc and may, according to their toxicity, cause more or less severe attacks of metal fume fever
(*b*) Generation of fumes other than metal volatilization of substances used as fluxes, i e, mainly fluorides, and, of course, substances used as coating of welding rods
(*c*) Generation of nitrous fumes
(*d*) Generation of ozone
(*e*) Generation of carbon monoxide
(*f*) Exhaustion of oxygen from the air
(*g*) Generation of injurious rays

Metal fumes —The nature of the metal fumes depends on the nature of the alloy welded and on the metallurgic composition of the welding rod Metals welded are mostly steel, stainless steel, chrome-molybdenum steel, and wrought iron Chromium is the only dangerous component of these steels and there may be quite a possibility

for systemic chromium poisoning as well as for irritation of the eyes and the mucous membranes of the respiratory tract. Some of the chest pain, eye irritations, and chronic cough complained of so frequently by welders may be caused by those fumes. Iron fumes are probably nontoxic. Any of the components of the rod may also cause formation of toxic fumes, notably chromium, manganese, and lead, if present. Chromium has been mentioned already, while manganese is capable of producing severe and chronic nervous pathology, as, e.g., a type of ataxia. Lead will be mentioned under lead poisoning.

The particular danger of welding on cadmium-plated parts has been mentioned above. Similar danger is connected with welding on other types of plated metal, such as chromium-plated metal and galvanized iron (zinc).

The symptomatology caused by the irritation of the mucous membranes from chromium fumes is common to other fumes generated in the welding process, such as nitrous fumes, fluoride fumes, ozone, etc. It is, therefore, in most instances, hard to determine which substances are at fault, and by the same token, it is possible that several factors are involved at the same time in the causation of the symptoms.

3. In gas welding metals are fused in the flame of an oxyacetylene torch. Fluxes are used in this operation, mostly fluorides. Metal worked upon is mainly dural. Some of the hazards connected with this method are the same as in arc welding. Metal fumes form, however, to a much lesser degree because of the lower temperatures produced. There is also a lesser degree of formation of nitrous fumes and ozone, but a higher degree of formation of carbon monoxide and of oxygen depletion of the surrounding air. In addition to other hazards common to both types of welding, there is the possibility of production of toxic fumes due to impurities of the oxyacetylene mixture, such as phosphine and arsine.

Other uses of the oxyacetylene torch are the following: cutting of steel on the "oxypantograph," melting of lead and kirksite on the drop hammer, preheating of metal and flux for arc welding, removal of traces of cadmium from metal to be rewelded, and brazing—this is an intermolecular fusion of two metals by a third supplied by the "brazing wire," in the heat of a gas flame. Hazards of this operation are the same as in welding on galvanized parts (zinc).

Lead Hazard

Exposure to lead is considerable in two places, i.e., in the foundry, where the so-called "dies" are made, and in the material-preparation shop, where the dies are used.

Dies are forms of metal on which sheet metal is shaped. They are mostly used in groups of two, in which one is the negative of the other. The metal sheets are shaped under pressure between the male and female dies. As a rule, one of the two dies is made of lead, the other of kirksite. In the foundry, lead and kirksite are molten in "pots" and then poured into moulds made of foundry sand (silica). In the polishing room, connected with the foundry, the dies are ground and polished.

The finished dies are installed on the drop hammer, on which they are bedded with the aid of molten lead and where, after their use, they are melted out again with the aid of an oxyacetylene torch.

All three operations are apt to produce a considerable amount of lead fumes in spite of good ventilation. Also, scraping, filing, and brushing are done on the dies on the drop hammer and thereby increase considerably the evaporation of lead into the air inhaled by the worker engaged in this operation.

Minor degrees of lead exposure exist wherever low melting-point alloys, such as cerrobend (a 13 per cent antimony, 87 per cent lead alloy), are melted and poured, as, for example, in pipe-bending operations. They exist also in soldering operations, i.e., in the final assembly where electric wires and other electric parts are assembled, inasmuch as the solder commonly used is a 60 per cent lead and 40 per cent tin alloy.

There is lead in the camouflage paint in the form of lead chromate, and lead may also be used in the commonly used paints as "drier" in combination with cobalt compounds.

RORSCHACH TEST COURSE TO BE GIVEN IN CHICAGO, JUNE 4–8

The Rorschach Test course at Michael Reese Hospital, Chicago, is scheduled this year for the week of June 4–8, inclusive. The records to be demonstrated will be representative of the older adolescent and younger adult, with especial emphasis on persons discharged from the military services. Dr. S. J. Beck, head of the Psychology Laboratory, will conduct the course. It meets twice daily, two hours each session. Interested persons may inquire of the Secretary, Department of Neuropsychiatry, at the Hospital, 29th Street and Ellis Avenue, Chicago 16.

EPIDEMIC VIRUS GASTROENTERITIS OCCURRING IN CIVILIAN POPULATION

JOSEPH S. FRIBUSH, M.D., New York City

IN THE light of recent observations made on the probable virus causation of epidemic gastroenteritis noted by Reimann and others,[1] I should like to record my own clinical observations of this disease. In the winter of 1943, I observed many cases of what appeared to be ordinary gastroenteritis. However, every patient observed had a reddened throat, and the disease was noted to spread with great rapidity throughout the family. This led me to suspect that this syndrome of nausea, vomiting, and diarrhea was not due to dietary indiscretions, but rather due to a virus. The incubation period was observed to be between two and five days. The disease manifested itself by nausea alone, nausea and vomiting, or nausea, vomiting, diarrhea, and abdominal cramps. Some patients, for example, had nausea only, accompanied by several loose bowel movements. General malaise was frequent. Temperature usually was between 100 F. and 100.5 F. In some patients the abdominal cramps, which came in waves like colic, were unusually severe, so that appendicitis was suspected. Treatment was symptomatic, with limitation of food and mild antispasmodics. Recovery in all cases was very rapid, usually occurring in one to two days. No sequelae or complications were observed. One patient, however, developed a severe melena five days after her gastroenteritis, which probably resulted from a duodenal ulcer. All age groups were attacked—infants, children, and adults. The disease would usually run through an entire family, although the severity of its manifestations varied markedly from patient to patient. Some patients, for example, were found, only upon direct questioning, to have recovered from the disease in a mild form.

I did not encounter this syndrome during the summer of 1944, but it recurred in the fall of 1944 with remarkable similarity to the cases observed in the previous year. While no laboratory investigation was done, since recovery was prompt, I felt that this atypical gastroenteritis was probably caused by a virus infection, epidemic and endemic in character, and probably associated with the rise in upper respiratory infections occurring in the fall and winter.

Case Reports

Case 1.—L. R., a 60-year-old white woman, first became ill on December 10, 1944, with nausea and abdominal cramps, without diarrhea. Two days previously, her daughter had similar complaints. Physical examination was normal except for a reddened throat. Recovery took place in thirty-six hours.

Case 2.—On November 19, 1944, J. F., 32-year-old white man, awoke one morning with sensation of nausea only. Physical examination was normal except for a reddened throat. The nausea persisted for two days, was mild, and was associated with several loose bowel movements and a feeling of malaise. Recovery was prompt.

Case 3.—S. F., a 24-year-old white woman, first became ill on November 7, 1944, with nausea, vomiting, abdominal cramps, and diarrhea. Physical examination was normal except for a reddened throat. All symptoms disappeared in thirty-six hours except the abdominal cramps; these were severe and griping, across the midabdomen, and the patient turned white whenever they occurred. The abdomen was always soft, and recovery was complete in three days. Several days after her recovery, her 2-year-old niece living with her had slight nausea and diarrhea lasting for one day and associated with a reddened throat.

[1] Arch. Int. Med. 74: 303 (Oct.) 1944.

YALE SCIENTISTS FIND LICHENS CHECK BACTERIA

Four Yale scientists disclosed on January 18 that li[illegible]o been found "with power [illegible]ilar to that of penicillin.

The scientists, Paul R. Burkholder, Alexander W. Evans, Ilda McVeigh, and Helen K. Thornton, announced that "already sixty out of one hundred [illegible] further [illegible]. Most of [illegible] last sum[illegible]ington, New Hampshire, and in Canada.

Herald Tribune, Jan. 11, 1945

Special Article

REDUCTION OF INSURANCE PREMIUM FOR X-RAY THERAPISTS

ONE of the most noteworthy developments in the Group Plan of malpractice insurance of the State Society is the reclassification of x-ray therapy for the purpose of rates which was announced in the report of the Council Committee on Malpractice Defense and Insurance as published in the May 1, 1945, issue of the JOURNAL.

For over twenty years substantial extra charges have been made by insurance companies throughout the United States for protection against the malpractice hazards of x-ray therapy. Under the experience-rating provisions of the Group Plan, the Medical Society of the State of New York is the first in the entire country to secure for its qualified members protection in the use of that modality without additional cost.

The Indemnity Representative of the Society has recently sent to all members of the Society known or believed to be using x-ray therapeutically a letter containing a full report on this subject. Because it offers a dramatic illustration as to how effectively the rating provision of the Group Plan operates and because the achievements of the x-ray therapists are an inspiration to the other members of the Society, that letter is reproduced in full.

JOHN STANLEY KENNEY, *Chairman*
Committee on Malpractice
Defense and Insurance

Dear Doctor,

It is a privilege and a real pleasure for me to be able to report to you that the surcharge for x-ray therapy protection under the Group Plan of the Medical Society of the State of New York has finally been eliminated and that, beginning May 1, 1945, qualified x-ray therapists will be able to secure full protection in the Group Plan at the same rates as all other members of the Society.

This is the result of a long and determined effort on the part of the x-ray therapists insured in the Group Plan to reduce the losses of their own specialty and their success is a notable achievement. Next to the organization of the Group Plan itself, I consider this the most important development in the history of malpractice insurance. For twenty years x-ray therapy has been considered by everyone to be the most dangerous specialty in medicine and substantial additional premiums have always been charged for it in all parts of the country. That this is no longer so in New York State is due almost entirely to the unremitting efforts of the members of the Society engaged in this specialty, and all credit is due them. It cannot be said that normal evolution in the science or general improvement in technic has contributed any appreciable part of the progress because, if that were so, similar progress would have been noted in at least some of the other states, in all of which surcharges running as high as 100 per cent of the base rates are still being charged by all experienced insurance companies.

The history of x-ray therapy insurance in this State is the story of the achievements of the men engaged in that specialty, and this is an outstanding example of what can be accomplished in medicine by competent and determined men. For the benefit of the younger men who have grown up and come into the practice of x-ray therapy since 1924, and for others who may be interested, it is worth reviewing briefly the history of x-ray therapy insurance in this state.

In 1921, when the Society was obliged to organize the Group Plan of malpractice insurance to protect its members against the chaotic conditions which existed at the time, no extra charge was made for x-ray therapy, although at least one of the leading insurance companies had previously announced that their experience clearly indicated that a heavy surcharge was needed to cover it. After three years of operation, the experience of the Group Plan showed the same results, and in 1924 it became necessary to provide a surcharge of $75, which was an increase of 450 per cent in the cost of insurance for x-ray therapists. While all of them understood the danger of x-ray as a therapeutic agent, less was known about how to guard against injuring their patients, and this sharp increase in the cost of insurance served to *focus attention on the need of doing something* about it. After several conferences, the first of which I had the privilege of initiating, committees were appointed, studies were undertaken, and various recommendations were made. It was clearly understood from the outset that the only sure and sound way to reduce insurance costs was to reduce the losses that caused them and that, in doing so, a valuable service would be performed for both the public and the profession. Out of these studies and recommendations there grew a demand for better understanding of the accumulative effect of x-ray exposure; better technic to minimize or eliminate harmful reactions and for treating them when they occurred; better equipment that would be more nearly shockproof and leakproof and that would prevent leaving out filters; better histories of previous exposures or the use of contraindicated drugs on the areas exposed to the rays; and better and more frequent calibration of machines.

The effect of all this on the loss experience of the Group Plan was not sudden, but by 1928 some improvement had been recorded and the insurance surcharge was lowered to $67. Three years later it was possible to reduce it to $49 and, in 1936, when the Group Plan was transferred to the Yorkshire Indemnity Company, a further reduction of $9 was made. The loss costs continued to improve and, in

1939, the surcharge fell to $30, and, in 1944, to $15 Finally this year even that small charge has disappeared.

While the steady reduction of the loss costs was due entirely to the x-ray therapists themselves, the fact that the insurance rates faithfully and promptly followed the downward trend of losses was due to the foresight of the Society in writing into its Group Plan a provision which made those revisions of the rates mandatory. This demonstration of the flexibility in rate adjustments will leave no doubts in the minds of those who have profited from it that the rating formula of the Group Plan of their State Society really does work

By their unceasing effort as a group, the x-ray therapists have achieved splendid results for their patients, their profession, and themselves, and have demonstrated what can be accomplished in medicine by united action Having had some small part in helping to chart the course of this program at its inception and having recorded each step in its progress, I may be permitted to congratulate the x-ray therapists of the Medical Society of the State of New York upon their success and upon being the first in the United States to demonstrate that, in competent hands, their specialty is no more dangerous from a malpractice standpoint than other branches of medical science. Perhaps I may also be permitted a word of caution. The procedures and safeguards which have brought the specialty to this important milestone are now fixed and there is little danger that they will be abandoned or carelessly applied by those who have adopted them But some measure of watchfulness may be necessary to see that the present standards of efficiency are not lowered by inexperienced members who may be persuaded to experiment with x-ray therapy before they are fully qualified to undertake it.

Very truly yours,
H. F. WANVIG, *Indemnity Representative*
Medical Society of the State of
New York

HEALTH WORK RAISES ECONOMIC LEVEL OF PARAGUAY'S PEOPLE

An important by-product of Paraguay's efforts to improve health and sanitation conditions throughout [illegible] pow[illegible] Plur[illegible] stitute of Inter-American Affairs

The In[illegible]titute, an agency of the Office of the Coordinator of Inter-American Affairs, is assisting the other A[illegible]ericas in carrying out health and sanitation me[illegible]sures, recommended by the Rio de Janeiro [illegible] 1942 [illegible] being put [illegible] ve Inter-[illegible]erican Cooperative Public Health Service), formed by representatives of the national government and members of the Institute's field party in Paraguay, of which Dr. Plunkett is the chief

During a short stay in Washington, Dr Plunkett expressed the conviction that by 1948 Paraguay will have completed laying the groundwork for a smoothly operating nation-wide public health service He said that for the remainder of the contract's life the agency will mainly endeavor to maintain and improve all its existing services, with particular emphasis on leprosy control and prevention and on further development of its health programs in rural areas. Practical measures also will follow current studies of the goiter problem.

Other diseases, such as tuberculosis, syphilis, and hookworm, Dr. Plunkett said, although far from being eradicated, are being brought under increasing control, and advances already made permit the anticipation of far swifter and more satisfactory results than originally expected.

Dr Plunkett mentioned, as a factor contributing to higher professional standards among Paraguay's health and sanitation specialists the training of a number of them in United States institutions of higher learning under study grants from the Institute About eight of the trainees are Paraguayan physicians selected to study basic medical sciences, who, upon their return home, are assigned to assistant professorships on the Medical Faculty of Asuncion.

The Service's activities, in addition to improving health conditions, also have direct economic ramifications Dr Plunkett [illegible] He explained that the [illegible] to some 750 [illegible]s, and construction workers

Dr Plunkett believes that, from a United States viewpoint, the Institute's investments in the work of the Service are yielding generous returns For instance, he said, by helping keep Paraguayan workers physically fit, the Service has sped the production of strategic materials, including hides, [illegible] inced that [illegible] the Good [illegible] [illegible] period immediately [illegible] will accelerate the pace of her over-all economic development and will naturally look to the United States for the acquisition of a variety of commodities, mostly machines of all types, technical equipment, automobiles, tractors, and drugs And, he says, it will very obviously be in the best interests of North American foreign trade to deal with a people whose needs and purchasing power have been greatly enhanced.—*Release from the Office of the Coordinator of Inter-American Affairs, Feb , 1945*

MONOCYTIC LEUKEMIA

HARRY F. WECHSLER, Lt. Col., (MC), AUS

(From the Medical Service, Station Hospital, Fort Bliss, Texas)

EVANS,[1] in his comprehensive review of monocytic leukemia published in 1942, was able to gather only 197 cases, 80 of which were reported from the United States. Because of the difficulty in identifying the young cells and the marked variation in the daily blood picture in the individual cases, not only is the frequency of this disease in proportion to the other types of leukemia in dispute but even the existence of the disease entity is denied by a few hematologists. It is important, therefore, that well-authenticated cases be reported.

Case Report

A 29-year-old white man was admitted to the hospital on May 16, 1943. His past history was irrelevant. For about two weeks he had noticed increased fatigue. Three days prior to admission, while on maneuvers, he became ill with fever, sore throat, and malaise. He was treated symptomatically at his dispensary and, as his temperature was recorded as 103 F. on his third visit, he was referred to the hospital. On admission, his temperature was 102.6 F. His pharynx and tonsils were moderately inflamed and the uvula was edematous. The anterior cervical lymph nodes were slightly enlarged and tender. The remainder of the physical examination was essentially negative.

Laboratory data.—A urinalysis was negative, except for a trace of albumen. A throat smear was negative for Vincent's organisms. The erythrocyte sedimentation rate was 42 mm. in sixty minutes. A blood count showed red blood cells, 4,400,000; hemoglobin (Sahli), 85 per cent; white blood cells, 20,300; neutrophiles, 10; lymphocytes, 90. There were large numbers of abnormal lymphocytes present which were reported as resembling the leukocytoid lymphocytes found in infectious mononucleosis.

On May 18 it was noted that small, firm, discrete lymph nodes were present at the angles of the jaw, in the posterior cervical, left supraclavicular, and right axillary regions, and that the tip of the spleen was barely palpable.

By May 21 his temperature had dropped to normal and he continued to be practically fever-free and with no complaints until June 17. He then developed a moderate gingivitis and smears of the gums showed a few spirilla and fusiform bacilli. Routine treatment for Vincent's stomatitis was started. The rest of his temperature curve is shown in Fig. 1. He complained of a sore mouth, anorexia, nausea, and malaise and on June 18, it was noted that both his skin and mucous membranes were pale. The lymphadenopathy was unchanged. A moderate ulcerative gingivitis was present. The liver was enlarged to two fingerbreadths below the costal margin but was not tender, and the spleen was palpable three fingerbreadths below the left costal margin. There was moderate upper abdominal distension. A blood transfusion of 500 cc. of whole blood was given on both this and the following day.

His course was now rapidly downward. The distension of the upper abdomen became very marked and he complained of extreme nausea and a painful pressure under both ribs, especially on inspiration. He was very restless and vomited greenish fluid occasionally. The liver increased to three fingerbreadths and the spleen to four fingerbreadths below the costal arch. Wangensteen suction was begun on June 20 with marked relief in his distension. A transfusion of 500 cc. of whole blood was given. On June 21 his general condition was somewhat improved. A moderate number of small purpuric spots appeared on his upper and lower abdomen, especially the latter. There was moderate lower abdominal distension. The next day, the skin and sclerae were icteric and the purpura was more marked. He passed a tarry stool. Signs of consolidation and friction rubs appeared over the bases of both lungs posteriorly. An x-ray of the chest at this time showed a flaky density involving the base of the right lung which extended upward to the second interspace and a lesser degree of a similar condition involving the lower area of the upper lobe of the left lung. His respirations became increasingly labored and his pulse became weaker and finally imperceptible. He lapsed into coma and expired on June 23, forty-two days after the onset of his illness and thirty-nine days after his admission to the hospital. The blood counts and the results of the various laboratory procedures performed during the course of his illness are listed in Table 1.

Up to the middle of June, the diagnosis of infectious mononucleosis was not questioned. At this time, because of his progressive anemia, the increased enlargement of both his liver and spleen and his negative heterophile antibody agglutination titers, blood smears were carefully studied and a diagnosis of subacute monocytic leukemia was made. The cells (Fig. 2) were large and round or oval. The nuclei had a fine reticular pattern and were usually notched or indented. Nucleoli were present. The cytoplasm was basophilic interspersed with yellow hyaloplasm, abundant and homogeneous. Azurophilic granules were present and some were vacuolated. Smaller cells with dense blue cytoplasm and coarser, purplish nuclear chromatin were also found and considered as monoblasts. No myeloblasts were found. Most of the cells did not take the peroxidase stain and in those that did, the granules were few in number and less deeply stained than in the normal control. No supravital studies were done.

Autopsy (Maj. Jesse Shapiro).—General: The body was that of a well-developed, well-nourished man, aged 29 years and measuring 68 inches in length. The sclerae and skin were slightly jaundiced. There were numerous petechial hemorrhages over the anterior abdominal wall. There was marked crepitation over the anterolateral aspect of the left thigh which extended downward over the knee and upward over the left inguinal region. There was moderate postmortem lividity over the back. The peritoneal cavity contained about 1,000 cc. of dark-yellow fluid. The peritoneal surfaces showed occasional petechial hemorrhages, most marked over the small bowel. The mesenteric lymph nodes were increased in number and enlarged. The liver extended 5 cm. below the right costal margin and 7 cm. below the xyphoid. Each pleural

[1] Evans, T. S.: Medicine 21: 421 (1942).

TABLE I HEMATOLOGIC AND LABORATORY DATA

Date	Red Blood Cells	Hemoglobin	White Blood Cells	Neutrophiles	Monocytes	Miscellaneous
May 17, 1943	4 4	85	20 300	10	90	Urin alb trace ESR 42 mm per 60 min het negative
May 22 1943	4 1	80	12 000	14	86	
May 24 1943	4 0	80	25 700	2	98	Het 1 14 Urin alb trace Kahn negative
May 29 1943	4 4	85	15 000	4	96	Het 1 28 Widal 1 160 Para A and B negative
June 5 1943	4 0	80	12 800	7	93	Het 1 28 ESR 4 mm per 60 min ict ind 7
June 9 1943	3 6	80	14 500	4	96	
June 18 1943	2 1	40	24 600	2	98	Transfusion 500 cc Blood type B
June 19 1943	3 0	60	26 900	2	100	Transfusion 500 cc
June 20 1943	2 3	45	16 800	2	98	Transfusion 500 cc blood culture negative clotting time 2½ [illegible]
June 21 1943	3 1	60	65 400	0	100	" " "
June 22, 1943	3 2	54	*45 000*	*0*	*100*	

Abbreviations Neut = polymorphonuclear leukocytes mono = monocytes including promonocytes and monoblasts urin = urinalysis Alb = albumen ESR = erythrocyte sedimentation rate het = heterophile antibody agglutination ict ind = icteric index

cavity contained about 300 cc of blood-tinged fluid There were no adhesions The pericardial sac contained about 100 cc of dark yellow fluid The pericardial surfaces showed numerous petechial hemorrhages There was a mass 7 by 6 by 2 5 cm in the posterior part of the anterior mediastinum which covered the upper portion of the pericardial sac On section it was firm and yellow The thyroid, parathyroids, larynx, and pharynx were not examined

Lungs The right lung weighed 690 Gm The pleura was smooth except for a nodular elevation 4 cm in diameter over the anterior surface of the upper lobe, the center of which was covered by yellow exudate The middle and upper lobes were adherent by fibrous connective tissue There were several strands of exudate over the posterior inferior surfaces of the lower lobe These surfaces were dark purple red On section of the upper lobe there was a subpleural nodule measuring 4 cm in diameter which was yellow-pink and showed a necrotic center The remaining lobe and the middle and lower lobes showed a slight excess of fluid In addition, the lower lobe showed an excess of blood There were no areas of consolidation The hilar lymph nodes were markedly enlarged The left lung weighed 600 Gm The pleural surfaces were smooth, pinkish gray, and mottled with black. There were intralobar fibrous adhesions On section each lobe showed a slight excess of fluid There were no areas of consolidation The hilar nodes were markedly enlarged

Heart The heart weighed 200 Gm Each chamber appeared to be of normal size The epicardium showed scattered petechial hemorrhages over all surfaces The myocardium was firm and dark brown The endocardium was pale yellow-brown and showed no mural thrombi Except for mild atheromatous thickening, the coronary arteries showed nothing of note The valves showed nothing of note The root of the aorta showed numerous atheromatous plaques measuring up to 6 mm in diameter The aortic arch and descending aorta [illegible]

[illegible] purple red and tense It was smooth except for a depressed area 5 mm in diameter over the diaphragmatic surface The cut surface showed the pulp to be dark purple moist, and the markings obscured

Liver The liver weighed 2,735 Gm The capsule was smooth and medium brown in color It showed numerous areas of yellow brown measuring up to 2 mm in diameter There were several patchy areas of thickening over the inferior surface of the lower lobe On section the parenchyma was light brown and showed the centers of the lobules to be a light gray-yellow There was a collar of deep yellow infiltration around the portal spaces There were scattered areas of hemorrhage, especially around the larger hepatic veins

Gastrointestinal tract The wall of the stomach was moderately thickened and less pliable than normal The rugae were raised and the sulci between the rugae were widened There were several ulcerated areas measuring up to 2 mm in diameter which extended through the mucosa The gastric contents were blood-tinged The Peyer's patches in the ileum were markedly enlarged and thickened Several of these Peyer's patches showed ulceration of the overlying mucosa The edges of the ulcers had a blackened appearance There appeared to be moderate thickening in the wall of the cecum

Genitourinary tract The right kidney weighed 220 Gm and measured 12 by 6 by 5 cm The capsule stripped easily, leaving a pale pink-yellow surface showing numerous petechial hemorrhages On section the markings were obscured by large areas of light yellow-brown in the medulla and cortex

Some of these areas had the appearance of a pale infarct The mucosa of the pelvis showed [illegible]

[illegible] ois

Bone marrow The bone marrow of the sternum was dark red That of the ribs was scanty but red

Lymph nodes Enlarged pale yellow lymph nodes were found in each axillary space, the inguinal regions, the hilum of each lung, the mesentery, the porta hepatis, the peripancreatic fat, the preaortic and periaortic regions, and the pelvis

On section most of these lymph nodes were yellow-white and homogeneous in appearance Occasional nodes appeared to be hemorrhagic.

The esophagus, gallbladder, pancreas, suprarenals, urinary bladder, prostate, and seminal vesicles

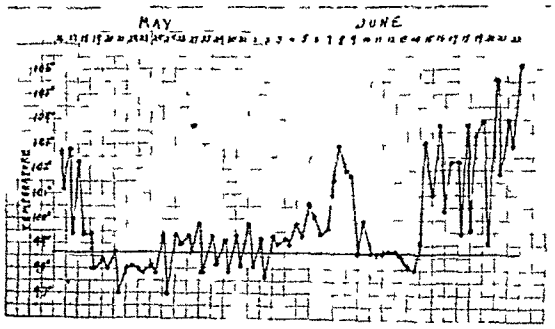


FIG. 1. Temperature curve from hospital admission to exitus.

showed nothing of note. The head was not examined.

Histopathologic examination.—Lymph nodes: The normal architecture was wiped out (Fig. 3). The predominant cell appeared to be a monocytoid cell showing a notched nucleus and a moderate amount of cytoplasm. These cells appeared to be derived from reticuloendothelial cells. Lymphocytes were also present. The blood vessels of the node were congested. The capsule was infiltrated by these cells.

Skin: The epidermis appeared normal. The corium showed a sprinkling of the monocytoid cells described above. They were also seen in perivascular arrangement.

Striated muscle: The microscopic section appeared essentially normal.

Liver: There was marked infiltration with leukemic cells in the portal spaces, producing a wide collar. There also were a moderate number of leukemic cells in the sinusoids, some appearing to be derived from the von Kupfer cells

Stomach: There was leukemic infiltration in the submucosa and between the glands of the mucosa (Fig. 4). There was a sprinkling of leukemic cells in the muscularis and the serosa. In one area, the gastric glands appeared to be necrotic.

Ileum: The Peyer's patches showed marked infiltration with leukemic tissue in all layers, most marked in the submucosa. The cellular structure had the appearance of marked reticulum-cell hyperplasia.

Heart: The epicardium showed infiltration with leukemic cells. The myocardium appeared edematous, as evidenced by the separation of the muscle fibers. There was no definite infiltration with leukemic cells into the myocardium, although the blood vessels were engorged with leukemic blood.

Pancreas: There was leukemic infiltration into the peripancreatic fat and into the interlobular connective tissue. The islets of Langerhans and gland acini showed nothing of note.

Spleen: The sinuses were congested with leukemic blood (Fig. 5). The sinus walls appeared to be quite distinct. The lymphocytic zones of the malpighian corpuscles were narrowed or entirely replaced by leukemic cells. Occasional areas of necrosis were present.

Kidneys: A rather diffuse infiltration with leukemic cells was present throughout the cortex and medulla, causing separation of the tubules. The glomeruli appeared essentially normal. The tubular epithelium showed colloid degeneration. In some areas the tubules and glomeruli showed a loss of tinctorial properties, suggesting leukemic infarction.

Lungs: The tumor of the lung was composed of the above-described monocytoid cells. Many of these cells appeared in a loose syncytium showing the characteristics of reticulum cells. The alveolar walls appeared to be thickened. The alveoli contained masses of the above-described tissue. One edge showed necrotic tissue. The other edge showed leukemic infiltration extending across the interlobar fibrous adhesions into the adjacent lobe. The adjacent lobe showed mild edema. Another section showed the alveoli to be thickened and very cellular because of congestion with leukemic blood. Perivascular and leukemic infiltration was marked.

Bone marrow: The bone marrow of the sternum was very cellular, the predominant cell type being the above-described monocytoid cell.

Pathologic Diagnoses

1. Leukemia—acute, monocytic, Schilling type
2. Leukemic infiltration of the upper lobe of the right lung, epicardium, spleen, liver, stomach, ileum, pancreas, kidneys, bone marrow, and lymph nodes
3. Bilateral leukemic infarcts of the kidney
4. Multiple ulcerations of the gastric mucosa and ileum, secondary to leukemic infiltration
5. Bilateral pleural effusion
6. Bilateral edema of the lung

Discussion

Like the other forms of leukemia, monocytic leukemia has been subdivided into acute, subacute, and chronic types. The division between the acute and subacute types, however, is purely arbitrary Because of the minimal symptoms for one month and the total duration of the illness of six weeks, the case here reported may be classified as of the subacute variety.

The clinical picture was typical. After a short prodromal period of weakness, there was an abrupt onset of sore throat and fever. The fever lasted for eight days and was followed by a latent period of seventeen days during which his only complaints were weakness and malaise. He then developed an ulcerative gingivitis of moderate severity. This was accompanied by a temperature that gradually rose to 103 F. Without any apparent change in his condition, his temperature dropped abruptly to normal on the fourth day and he remained afebrile for four days. The terminal phase was marked by a high septic temperature, progressive anemia, increased enlargement of liver and spleen, hemorrhagic phenomena, gastrointestinal symptoms, and a terminal pulmonary involvement. Lymphadenopathy, clinically, was confined to the cervical nodes and was never very pronounced.

The hematologic findings call for some discussion. It is not surprising that the cells were at first mistaken for the leukocytoid lymphocytes of infectious mononucleosis. There is a resemblance between these cells and monocytes and the early examinations were performed by a laboratory technician and not by a medical officer. Although a low heterophile antibody agglutination titer is usually emphasized as of differential importance, it is well known, however, that the Paul-Bunnell test may

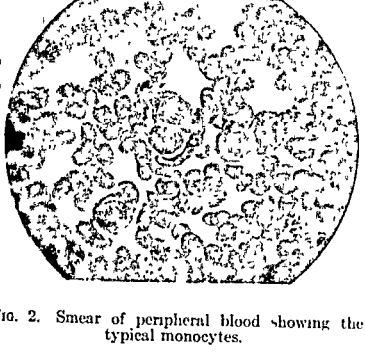


FIG. 2. Smear of peripheral blood showing the typical monocytes.

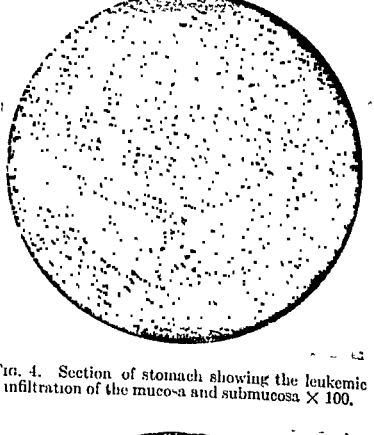


FIG. 4. Section of stomach showing the leukemic infiltration of the mucosa and submucosa × 100.

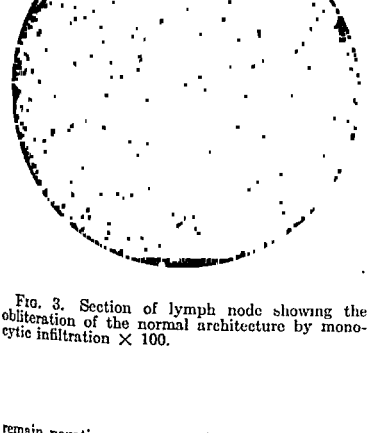


FIG. 3. Section of lymph node showing the obliteration of the normal architecture by monocytic infiltration × 100.

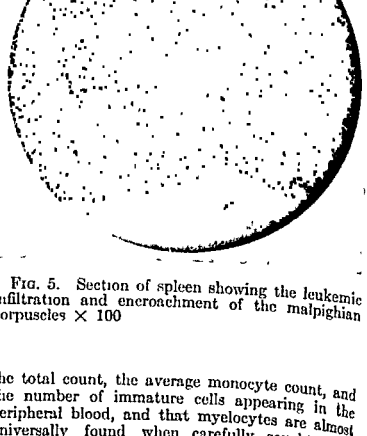


FIG. 5. Section of spleen showing the leukemic infiltration and encroachment of the malpighian corpuscles × 100

remain negative or may not become positive until late in the course of true cases of infectious mononucleosis. The low titer, therefore, did not arouse suspicion in the early phase of the illness.

The course of the disease, especially the progressive anemia, was of greater importance in arriving at the correct diagnosis. In an epidemic of over 500 cases of infectious mononucleosis, recently observed at this post, there has not been a single case of more than mild anemia. Many of these were severely affected and ran prolonged courses

Evans[1] has emphasized the great variability in the total count, the average monocyte count, and the number of immature cells appearing in the peripheral blood, and that myelocytes are almost universally found when carefully sought. The blood counts in the reported case, however, were remarkably constant and in the terminal phase, at least, a painstaking search failed to reveal any myelocytes. This case, therefore, belongs to the Schilling-Torgau rather than the Naegeli type of monocytic leukemia.

There were two other atypical features [illegible] the peroxidase stain, monocytes are sa[illegible]

positively but not so deeply as myelocytes, and with a smaller number of granules. In the single stain performed in this case, the great majority did not take the stain at all and in the few that did so, the granules were few and faintly stained.

In spite of an extreme agranulocytosis and a progressive anemia which responded poorly to repeated blood transfusions, there was no apparent depression of the thrombopoietic function of the bone marrow. However, platelet counts were not made until the last two days of the disease and after he had had numerous blood transfusions. It is possible that the latter may have altered the platelet count.

Summary

1. A typical case of monocytic leukemia with autopsy findings is presented.
2. The difficulty in differentiating the subacute variety in its early stage from infectious mononucleosis is pointed out.

THE PHYSICAL FITNESS PROGRAM

The rejection of roughly a third of the draftees for military service has attracted public attention. In an effort to correct the situation, the President, in April, 1943, appointed a Committee on Physical Fitness in the administrative office of the Federal Security Agency. This Committee and its National Council on Physical Fitness presented a proposal to the American Medical Association to join in a program specially emphasizing the importance of physical fitness. This was accepted in June, 1944, and resulted in a Joint Committee on Special Emphasis for Physical Fitness.

Physical fitness has two rather distinct phases. One depends on physical education, and the other on health. The medical profession is devoted to the subject of health and should wholeheartedly join in the Physical Fitness Program.

It was found that a large percentage of those who met the requirements for military service were not physically fit to make good soldiers. They were lacking in muscular strength, agility, and endurance, and required several months of training before they were in condition. There was evidence of need for improvement in the physical education even of recent high school graduates, 50 per cent of whom had had no such training the last two years of school. Too many were unable to swim, could not jump over a bar two feet high, or chin themselves seven times. Analysis of defects disqualifying men ranging in age from 18 to 37 showed, according to Rowntree,* the following percentages of defects: manifestly disqualifying defects such as missing limbs, congenital deformities, and obvious disabilities resulting from illness or injury, 10.5 per cent; mental disease, 16.6 per cent; mental deficiency, 13.8 per cent; other musculo-skeletal defects, 7.5 per cent; syphilis, 6.7 per cent; cardiovascular disorders, 6.5 per cent; hernia, 5.7 per cent; neurologic defects 5.1 per cent; defective vision, 5 per cent; defective hearing, 3.9 per cent; and defective teeth, 0.9 per cent. Overweight and underweight were together responsible for 1.5 per cent of rejections. The author calls attention to the fact that the incidence of defects per 1,000 men examined is a better index of the health and fitness of the young men of the country.

Medical science alone cannot prevent or cure many of these causes of disability. The prevention of certain inherited conditions depends on eugenics; of certain contagious diseases, on quarantine by health departments, as well as vaccination; of musculo-skeletal defects, on safety devices in industry, the home, and in traffic; of syphilis, on morals and public education. Refractive errors in vision cannot be prevented, although they can be largely corrected by glasses. Hernia, which accounts for comparatively few rejections, can be corrected. Dental defects were the cause of relatively few rejections. There is room, however, for improvement, not so much in the quality but in the quantity of dental care received in our country.

So the Physical Fitness Program concerns not only physical education and medicine but all agencies concerned with the physical well-being of Americans from the cradle to the grave. These include athletics of all sorts for school children; golf, fishing, hunting, and the like in which adults can participate. It includes every activity devoted to the prevention of disability through accident or disease. It involves also an educational program to inform the public of the desirability of physical fitness and health, the importance of prevention of those things which cause disability, and the possibility of correcting certain defects in the interest of greater fitness.

We have been discussing disabilities found in young men examined for military service. We have no similar gage for determining the physical fitness of young women of the draft age. They are probably no more physically fit than the young men. The fitness program concerns them and also men and women beyond the draft age. It is asserted, and doubtless rightly so, that when men and women finish their schooling and enter their life work they become progressively less fit. They have less time to devote to keeping in trim and grow careless in health matters.

When a nation goes to war, physical fitness of the young men of the country is a vital matter. Fortunately or unfortunately, fitness in our modern civilization, though desirable, is not so essential. Whether a man can chin himself seven times, or jump two feet, is not so important, but maintenance of good health is important. We can recollect many examples of individuals who would be rejected for military service but have been outstanding in business, the professions, and the arts. These men and women have triumphed in spite of physical disabilities. Fitness is a worthy objective for the laity and the medical profession alike. Every activity that favors physical and muscular development merits support. On the other hand, man has his intellectual, moral, and spiritual side in addition to his physical side. The youth movement in Germany was highly successful in developing the physical fitness of her young men and women. Lack of emphasis, however, on the moral and spiritual needs of her people has resulted in tragedy for Germany and the rest of the world.—*Minnesota Med., Dec., 1944*

* Rowntree, Leonard G.: Physical Fitness for America. Hygeia 22: 744 (Oct.) 1944.

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TREATMENT: The intramuscular injection of 1 cc. of extract may give adequate relief in mild cases. If relief is not obtained, additional 1 cc. doses should be administered at intervals of 24 hours until symptoms have subsided.

PACKAGES

1 TUBEX	1 cc. size	50A64
5 TUBEX	1 cc. size	50B64

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Additional Annual Reports

To the 1945 House of Delegates
Medical Society of the State of New York

PARTS VII-VIII

Public Relations and Economics

The Council Committee on Public Relations and Economics was composed of the following personnel:

Carlton E. Wertz, M.D., *chairman*.....Buffalo
Harry Aranow, M.D.....Bronx
Charles M. Allaben, M.D.....Binghamton

Your Committee and its Subcommittee on (Voluntary) Medical Expense Insurance, composed of the following members:

A. H. Aaron, M.D., *chairman*.....Buffalo
Leo Simpson, M.D.....Rochester
William Hale, M.D.....Utica
Leo E. Gibson, M.D.....Syracuse
J. H. Cornell, M.D.....Schenectady
William B. Rawls, M.D.....New York
Milton J. Goodfriend, M.D.....Bronx
Abraham Koplowitz, M.D.....Brooklyn

devoted considerable time in the selection of a Director of the new Medical Care Insurance Bureau. Many applicants were examined before the final choice was made. It was finally unanimously agreed that Mr. George P. Farrell, of Buffalo, was best qualified for the position. The Council, as well as the Board of Trustees, approved the selection.

The Committee feels that the question of voluntary medical insurance is of the utmost importance and urges that the Medical Society of the State of New York give the various plans in the state its wholehearted support and with the aid of the new Bureau and its Director, develop plans throughout the state so that there will be no area in which medical care insurance is not available.

In a comparatively short period of time state-wide interest has been manifested in the Bureau's activities. Many requests have been made to the Bureau for Mr. Farrell to appear before county medical groups in the Metropolitan area and throughout the state. In areas where plans are already in operation many diversified problems have arisen regarding the lack of participation of some of the county societies and the lack of interest shown by some physicians.

A concentrated effort is being made to bring these problems before the officers of each county society in the Metropolitan area and elsewhere, in order to get an over-all picture of the interest being shown in the various parts of the state.

A study has been made of the experience of existing plans regarding enrollment regulations from a sound underwriting point of view and suggestions have been made and adopted for a more liberal enrollment policy to promote a more rapid growth of existing plans.

A study is now being made of existing benefit associations which have retarded the acceptance of nonprofit plans in certain communities.

In areas where plans are nonexistent, Mr. Farrell has appeared before representative groups and discussed the advantages of the voluntary medical plan.

As a result of these meetings aid was given to the new plans now in the process of formation in the Rochester and Albany districts and very active interest has been aroused.

Your attention is also called to the Ives Bill, introduced into the Legislature this year, which is really a Wagner Bill for the State entitling all persons who are subject to the unemployment tax and its benefits to receive complete medical care as well as their dependents. This requires careful study by all physicians.

The proposal of the Blue Cross organization of a national surgical plan requires careful thought. It has many ramifications and may lead to many inroads on medical care in the future. The medical profession should be very careful before endorsing such a plan. The question of how it will affect and compete with existing plans of the medical societies is one of the many questions that arise. If the plan is created the control should be in the hands of the medical profession.

The medical care of veterans is another serious problem and one in which the medical profession should be vitally interested. Why he should not be able to have his own physician and be hospitalized the same as any other worthy citizen in a hospital of his own choosing is a question that should be given real study. The care of the veteran at present is far from what it should be.

The medical care of the welfare group is also of great importance and our Subcommittee on Public Medical Care, composed of:

Ralph T. B. Todd, M.D., *chairman*....Tarrytown
Joseph C. O'Gorman, M.D.....Buffalo
Charles F. Rourke, M.D.....Schenectady

has done splendid work in its relation with the Welfare Department. At no time in the past has there been a better understanding between the Department and the medical profession.

PART XIV

Woman's Auxiliary:

The Council Committee on Woman's Auxiliary consists of the following personnel:

Carlton E. Wertz, M.D., *Chairman*.....Buffalo
F. Leslie Sullivan, M.D.....Scotia
Nathan B. Van Etten, M.D.....Bronx

The Woman's Auxiliary of the Medical Society of the State of New York has been very active this year in spite of the War.

Splendid work was done by the various county societies in their legislative efforts as well as public health and Red Cross work and in the selling of war bonds and many other activities for the welfare of the public as well as for the medical profession.

The Woman's Auxiliary Board had a well-attended two-day meeting in Buffalo in the Fall. The Winter board meeting was held in New York City and Drs. Van Etten and Lawrence as well as Mr. Anderson gave very stimulating and informative talks. The Woman's Auxiliary is a vital force and of great importance to the State Society and should be encouraged in every way for the splendid work it is doing.

In Peptic Ulcer . . .
Hyperacidity . . .
Gastritis . . .

Magmasil

Greater Acid Neutralizing Power

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Longer Protective Action

•

Fewer Doses Needed

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No Constipation

A stable aqueous suspension of hydrated magnesium trisilicate in extremely fine subdivision, Magmasil is an outstanding advancement in the treatment of peptic ulcer, gastritis, hyperchlorhydria.

Its antacid action is powerful; one teaspoonful neutralizes 86 cc. of N/10 HCl. It is prolonged, extending over fully four hours.

Hence fewer doses are needed, the customary 11 P.M. administration usually holding the patient comfortable through the night.

Magmasil is free from the drawbacks and limitations of many other antacids. There is no alkalosis, no chloride depletion, no undesirable astringency, no constipation which has made the patient uncooperative with other methods.

Pain and pyrosis are stopped promptly, and healing is brought about rapidly.



Magmasil is available through all pharmacies in 12 oz. bottles.

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Postgraduate Medical Education

Programs arranged by the Council Committee on Public Health and Education of the Medical Society of the State of New York are published in this Section of the JOURNAL. *The members of the committee are Oliver W. H. Mitchell, M.D., Chairman (428 Greenwood Place, Syracuse); George Baehr, M.D., and Charles D. Post, M.D.*

Cancer Teaching Day for Chemung County

A CANCER teaching day will be held at the Arnot-Ogden Memorial Hospital in Elmira on Wednesday, May 23, under the auspices of the Medical Society of the County of Chemung, the Medical Society of the State of New York, and the New York State Department of Health, Division of Cancer Control. The meeting will open at 4:30 P.M. with remarks by Dr. William T. Boland, president of the Medical Society of the County of Chemung, and Dr. John F. Lynch, chairman of the Committee on Cancer Control and chairman of the day's meeting.

Two lectures will be given in the afternoon. Dr. Clyde L. Randall, professor of gynecology, the University of Buffalo School of Medicine, will speak on "Hormone Therapy and the Prevention of Gynecologic Malignancies." "Carcinoma of the Genitourinary Tract" is the subject of the second lecture, which will be given by Dr. Archie L. Dean, assistant professor of clinical surgery, Cornell University Medical College, in New York City.

The evening lecture, beginning at 8:00 P.M., will consist of instruction by Dr. Cushman D. Haagensen, assistant professor of surgery, College of Physicians and Surgeons, Columbia University, New York City, on diagnosis and treatment of breast cancer.

A buffet dinner will be served at 7:00 P.M. at the Arnot-Ogden Memorial Hospital. The local committee in charge of arrangements for the teaching day is as follows: Dr. John F. Lynch, chairman, and Drs. A. A. Blash, M. Dreyfuss, and M. H. Wyttenbach.

Cancer Symposium for Physicians

AN ALL-DAY cancer symposium for physicians, arranged by the Nassau County Cancer Committee, was held on April 13 at the Garden City Hotel, Garden City, Long Island.

The three morning lectures were as follows: "Five Years of Cancer Reporting in Nassau," by Dr. Earle G. Brown, Commissioner of the Nassau County Department of Health; "The Diagnostic Problems of Early Cancer," by Dr. Lloyd F. Craver, attending physician at the Memorial Hospital, New York City; and "Cancer of the Genitourinary Tract," by Dr. Clyde L. Deming, professor of urology, Yale University School of Medicine.

In the afternoon the following four lectures were given: "Gynecological Cancer," by Dr. James A. Corscaden, clinical professor of obstetrics and gynecology, College of Physicians and Surgeons, Columbia University; "Physical Basis for the Use of X-Rays and Radium in the Treatment of Cancer," by Dr. Edith H. Quimby, associate professor of radiology, College of Physicians and Surgeons, Columbia University; "Cancer of the Breast," by Charles F. Geschickter, Lt. Comdr., (MC),USNR, Medical School, National Naval Medical Center, Bethesda, Maryland; and "Gastrointestinal Cancer," by Dr. George T. Pack, attending surgeon, Memorial Hospital, New York City.

Hemorrhages in Pregnancy

"HEMORRHAGES of the Latter Part of Pregnancy" was the topic of postgraduate instruction arranged by the Medical Society of the State of New York, cooperating with the New York State Department of Health, for a meeting of the Cortland County Medical Society at 8:30 P.M. on April 20, in the Staff Room of the Cortland County Hospital, Cortland.

Dr. Edward C. Hughes, professor of obstetrics, Syracuse University College of Medicine, spoke.

Sullivan County Discussion

WOUNDS and nerve and tendon injuries were discussed by Dr. David Lyall, assistant surgeon, New York Post-Graduate Medical School and Hospital, Columbia University, at a meeting of the Medical Society of the County of Sullivan, held at 8:00 P.M. on April 25 at the home of Dr. Harry Golembe, of Liberty. This instruction was presented cooperatively by the Medical Society of the State of New York and the New York State Department of Health.

Broome County Hears Lecture on Peptic Ulcer

"THE Peptic Ulcer Problem" was the subject of the lecture given by Dr. Albert F. R. Andresen, professor of clinical medicine, Long Island College of Medicine, Brooklyn, at a meeting of the Broome County Medical Society on May 8.

The postgraduate instruction, arranged by the Council Committee on Public Health and Education, took place at the Binghamton City Hospital

[Continued on page 1126]

recent extensive investigation confirms contraceptive effectiveness of the active ingredient in Koromex Jelly

A most illuminating report based on extensive clinical and experimental data has recently been published by Eastman and Scott (Human Fertility, 9:33, (June) 1944.) These authors studied the safety and efficacy of phenylmercuric acetate which is the active constituent of Koromex Jelly.

1 Clinical evidence showed that in actual use, phenylmercuric acetate jelly had a remarkable record for contraceptive efficiency.

2 The earlier work of Baker, Ranson and Tynen (Lancet, 2:882, (October 15), 1938), showing a very high spermicidal potency, was confirmed.

3 Toxicity was found low.

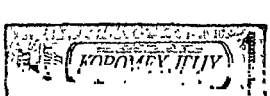
4 No evidence of irritability on the part of either the husband or wife.

In addition to the above qualities, Koromex Jelly, which also contains oxyquinoline benzoate and boric acid in a well buffered glycerine gum base, has the properties of adhering firmly to the vaginal lining and mixing readily with the vaginal secretions. It has optimum spreading qualities. Its pH of 4.6 is constantly maintained even in the presence of the buffering action of the protein seminal fluid.

Koromex Jelly does not stain. It is not excessively lubricating, and is well tolerated. Because of these qualities you can assuredly — prescribe Koromex *with confidence.*

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prescribe Koromex *with confidence*

[Continued from page 1124]

Treatment of Heart Disease

DR. HAROLD J. STEWART, associate professor of Medicine, Cornell University Medical College, discussed what can be accomplished in the treatment of heart disease at a meeting of the Tioga County Medical Society held at 6:30 P.M. on April 25 at the Wagner Hotel, Waverly, New York. Dr. Stewart's postgraduate instruction was presented by the Council Committee on Public Health and Education of the Medical Society of the State of New York.

"Varicose Veins and Ulcers"

THE staff of the Memorial Hospital of Greene County and the Greene County Medical Society will attend postgraduate instruction on June 28 at 9:00 P.M. at the Memorial Hospital of Greene County, in Catskill.

Dr. Isidor S. Tunick, of New York City, will deliver a lecture on "Varicose Veins and Ulcers." This instruction has been arranged by the Council Committee on Public Health and Education of the Medical Society of the State of New York.

On April 26 the same group heard a discussion by Dr. Ralph G. Stillman, assistant professor of medicine, Cornell University Medical College, on the significance of laboratory tests and methods.

DR. HOSKINS WILL DELIVER SALMON LECTURE SERIES FOR 1945

Dr. C. Charles Burlingame, chairman of the Salmon Memorial Committee, has announced the selection of Dr. Roy Graham Hoskins as the Salmon Memorial Lecturer for 1945. Dr. Hoskins, research associate in physiology, Harvard Medical School, and Director, the Memorial Foundation for Neuro-Endocrine Research, Boston, and Director, Worcester State Hospital, Worcester, Massachusetts, has, for some eighteen years, devoted much of his time to research concerning endocrine disturbances in mental disease. He is internationally known for his contributions to both the neuro-endocrinologic and physiologic fields.

"The Biology of Schizophrenia" will be the title of the Salmon Lecture Series to be given at the New York Academy of Medicine on three successive Friday evenings—November 2, 9, and 16, at 8:30 P.M.

Born in Nevinville, Iowa, July 3, 1880, Dr. Hoskins taught for some years before receiving his medical degree from John Hopkins University Medical School in 1920. His teaching has embraced the fields of zoology and physiology at Kansas State, Harvard Medical School, Starling-Ohio Medical College, Northwestern University Medical School, and Johns Hopkins University Medical School, prior to his appointment as head of the Department of Physiology of Ohio State University, 1920–1927. Since 1927 he has been established at Harvard University.

Dr. Hoskins has written two books—"Tides of Life," and "Endocrinology–The Glands and Their Functions." He also contributed the section on endocrinology to the MacLeod-Bard *Physiology in Modern Medicine.*

At present, Dr. Hoskins is serving as a member of the Advisory Committee for Research and Education to the Commissioner of Mental Health, Commonwealth of Massachusetts, and as a member of the Committee on Endocrinology, National Research Council, and Secretary, Worcester Foundation for Experimental Biology. Dr. Hoskins was president of the American Society for Research in Psychosomatic Problems in 1944.

In his introductory Salmon Memorial Lecture, on November 2, Dr. Hoskins will cover the "Nature of Schizophrenia," speaking specifically of the evolution of adaptation, emergence of integrations at different levels, and conserving mechanisms. In the second talk, on November 9, his lecture will deal with "Manifestations of Schizophrenia" at six different levels of integration—cellular, reflex, autonomic-endocrine, behavioral, intellectual, and personal-social. The third and last lecture of this series, on November 16, will concern itself with the "Treatment of Schizophrenia and Needs for the Future." Under treatment, he will discuss the symptomatic agents, shock therapies, reconditioning, and resocialization, and under future needs, preventive psychiatry (prophylaxis vs. salvage), education, and research.

Sponsoring these lectures is the Salmon Committee on Psychiatry and Mental Hygiene, appointed by the Council of the New York Academy of Medicine.



When Radiography Called For 1-Man-Power Kv./p..

Recalling the period shortly after Roentgen's famous discovery, is this depiction of how the progressive contemporary physician, inspired by the possibilities with x-rays in medicine, proceeded to obtain a radiograph of his patient's hand.

A crude set-up, as you see, yet it served his purpose—even though this two-plate static machine had to be manually cranked for a half-hour to produce a "skiagraph" of the hand!

To fully appreciate how far x-ray science has since advanced, consider today's facilities for producing chest radiographs in 1/60-second or less, and of 8-inch steel castings in 3 1/2 minutes!

Looking back upon this half-century of progress, we of the G-E organization enjoy a profound satisfaction in having been privileged to collaborate with the radiological profession and industrial engineers toward continual advancements in this science; while pledging anew our facilities for research and development as they may in the future serve the mutual interests.

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GENERAL ELECTRIC X-RAY CORPORATION

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Medical News

Eye Bank Ready to Aid Blind with Corneal Tissue

A TREASURE-HOUSE of human eyes, from which surgeons may draw corneal tissue to restore the sight of blind persons, has been incorporated in New York as the Eye Bank for Sight Restoration, it was announced on April 13. At present the bank, which is nation-wide in scope, has its headquarters at the Manhattan Eye, Ear, and Throat Hospital.

Tissue supplied by the bank may give back sight to between 10,000 and 15,000 persons in the United States who are blind only because of corneal defects, the announcement said. The operation of substituting a healthy cornea for a damaged one can restore sight in only one kind of blindness—that caused solely by opacity of the cornea when the rest of the eye and optic nerve are normal.

Twenty-two hospitals in New York are already affiliated with the program, and all will deposit eyes with the bank. The eyes are taken from live patients whose eyes may have been removed for other reasons, although the cornea is unimpaired, from dead patients who have bequeathed their eyes to the bank (eyes must be removed within one hour after death), and from stillborn infants.

The operation has been performed successfully by opthalmologists for the last three decades. Prior to the establishment of the bank, surgeons who wished to perform the operation were forced to search various hospitals in an effort to find an eye from which the graft could be performed. Now, the bank will provide a central repository where eyes can be stored until they are needed.

To date, doctors estimate that large eye hospitals have been unable to perform more than fifty operations a year because of the difficulty of obtaining the corneal material, and most of the institutions had long waiting lists of patients. The bank was set up as an experiment at New York Hospital last May, and the present organization stems from that experiment.

Mrs. Henry Breckinridge, executive director of the bank, said yesterday that now it is possible to preserve the eyes only for seventy-two hours. They are kept in a saline solution at a temperature of between 3 and 4 C. Red Cross Motor Corps cars rush the eyes from hospitals to the bank.

Equally important, according to Mrs. Breckinridge, is the bank's program of research and education. Its directors hope, by continued research, to find a means of preserving the eyes indefinitely. She pointed out that only about fifteen ophthalmologists in the United States are now qualified to perform the operation. The bank, she said, will establish fellowships under which eye surgeons will be able to learn the operation technic.

Officers of the eye bank, besides Mrs. Breckinridge, are: chairman of the advisory council, Albert G. Milbank; president, Stanley Resor; vice-president, Dr. R. Townley Paton; secretary, Cyril B. Hartman; and treasurer, Walter C. Baker.

Chest Physicians Cancel Meeting

THE American College of Chest Physicians, with a membership in twenty-three countries, has canceled its annual meeting.

The Executive Council of the College voted to hold a business meeting of the Board of Regents at Chicago on June 17.

Neuropsychiatric Act to Provide Clinics Is Urged by National Committee for Mental Hygiene

THE National Neuropsychiatric Act *HR 2550* makes Federal provision for outclinic treatment of neuropsychiatric patients advocated by the National Committee for Mental Hygiene, it was revealed on March 29 by Dr. George S. Stevenson, medical director of the Committee.

The bill is to provide for, foster, and aid in coordinating research relating to neuropsychiatric disorders; to provide for more effective methods for prevention, diagnosis, and treatment of such disorders; to establish the National Neuropsychiatric Institute as a function of the U.S. Public Health Service; and for other purposes.

Dr. Stevenson stated that this bill for the first time expresses Federal interest in advancing knowledge of mental illness commensurate with the size of the problem. It not only provides for a central research hospital near Washington, but is prepared to offer support to universities and hospitals in the pursuit of psychiatric research. It enables states to initiate service to patients, the absence of which is greatly impressed upon us by the needs of many medically discharged veterans.

Under this bill states could establish outclinic services that would make it unnecessary for many patients to enter a hospital. The bill also provides for the training of staff. Without such provisions it would be practically impossible to establish clinics.

"A large proportion of men discharged from the armed services have neuropsychiatric disabilities and do not need hospitalization, but will need the kind of assistance that can be given in outpatient clinics," said Dr. Stevenson. "While such clinics have advanced greatly in the past two decades, in quality of service given, for the most part they are too few in number to service the needs of the country.

Meeting this need is primarily a matter of organization within the states but experience has shown that without some additional incentive and support it will be difficult for the states to provide such service."

[Continued on page 1130]

CAMP
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ANATOMICAL SUPPORTS
for
PENDULOUS ABDOMEN



Patient of stocky type of build before and after application of a Camp Support

MANY obese patients delay seeking a physician's advice until the overburdened joints show arthritic changes or severe dyspnea or anginal pain develops.

Gastro-enterologists and other clinicians report that anatomical supports are efficient aids in the treatment of these patients. Fitted in a reclining position, Camp Supports, by reason of the fact that they support the pelvic girdle, hold the forward load up and back, giving relief to the lumbar spine. They reduce the drag of the viscera upon the diaphragm, helping to improve its action in respiration and circulation. Camp Supports are comfortable and economically priced.

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[Continued from page 1128]

Governor Dewey Signs Bill for Blood Program

A BILL authorizing the State Department of Health to establish a program for collection and distribution of human blood and blood derivatives for use in transfusions was signed on March 28 by Governor Thomas E. Dewey. The bill carries an initial appropriation of $100,000.

The Governor said it was one of the "important measures" adopted at the recent session of the Legislature and would "save the lives of many people," adding: "It is a result of the remarkable discoveries in the use of blood plasma and whole blood in medical science and in the treatment of the wounded during the war." It will permit blood-collection and distribution programs in areas of the state where no such program now exists. Asserting that it would not interfere with the collection of blood for the use of the armed forces, he said the plan was developed with the assistance of the American National Red Cross.

The Governor added to his memorandum a statement of the Medical Society of the State of New York favoring the bill which read:

"It is considered that the establishment by the Health Department of a program for the collection, storage, and distribution of human blood and blood derivatives, including therapeutic and diagnostic serums, is most important in the treatment of sick and injured persons and the prevention of disease.... The diagnostic and therapeutic serums are extremely important and will aid in the treatment of many of the infectious diseases and will be a great factor in diagnosing conditions of pregnancy and lowering the maternal death rate in obstetric cases."

The bill was sponsored in the Legislature by Sen. Walter J. Mahoney, of Buffalo, and Assemblyman Lee B. Mailler, of Cornwall-on-Hudson, chairman of the long-range health program commission of the State Legislature.

County News

Albany County

Dr. Jacob Lewis Lochner, Jr., of Albany, has been appointed secretary of the State Board of Medical Examiners to fill the vacancy caused by the resignation of Dr. Robert R. Hannon. Dr. Lochner, a graduate of Tufts Medical School, has served as lecturer and instructor at Brady Maternity Hospital, Albany Training School for Practical Nurses, and Albany Medical College.*

• • • •

At the regular monthly meeting of the county society on March 28 at 8:30 P.M., Mr. George P. Farrell, Director, Bureau of Medical Care Insurance, Medical Society of the State of New York, spoke on "The Advantages of a Volunteer Medical Care Plan."

On April 25 Dr. A. Wilbur Duryee, of New York City, spoke on "Prevention and Treatment of Phlebitis." The discussion was opened by Dr. L. Whittington Gorham, of Albany, and was continued by Dr. Benjamin Etsten, of Saranac Lake.

Bronx County

The value of a wholesome diet in preventing heart disease was stressed by Dr. B. Pasquarelli on "Prevention and Treatment of Heart Disease," in a broadcast over Station WNYC, sponsored by the Bronx County Medical Society on March 24.*

• • •

On April 10 Dr. J. Lester Unger, of New York City, spoke at the Parkchester Hospital on "Rh Factor and Its Clinical Importance." The lecture was followed by discussion.

• • •

The regular monthly meeting of the county society was held at the Concourse Plaza Hotel on March 21, at 8:30 P.M. Following the executive session a symposium entitled "Organized Medicine Looks Ahead" was given. The first lecture was "Program of the American Medical Association," by Dr. Louis H. Bauer, of Hempstead. Mr. George P. Farrell then spoke on "What the New York State Medical Society Is Doing to Promote Medical Care Plans." Dr. William B. Rawls, of New York City, then discussed "What the Five Counties Have Done and Are Doing Now."

Broome County

Dr. Norman Jolliffe, of New York City, assistant professor in the College of Physicians and Surgeons, Columbia University, addressed the county society at the annual dinner meeting on March 14 at 6:30 P.M. in the Binghamton Club.

According to Dr. J. C. Zillhardt, secretary of the association and consulting physician of the Endicott-Johnson Corporation, Dr. Jolliffe is an outstanding authority on vitamins. Dr. Zillhardt introduced the speaker. The dinner was sponsored by the Endicott-Johnson Medical Department.*

Chautauqua County

Dr. Edward C. Koenig, of Buffalo, gave a talk on x-ray diagnosis and treatment, illustrated by lantern slides, when the county society met in Jamestown. Dr. William L. King presided at the association's business session at which it was voted to sponsor the State Medical Society's cancer education program locally. A committee was named by Dr. King to make arrangements for the cancer education project in Chautauqua County.*

Chenango County

Dr. William D. Mayhew left Oxford March 29 to take a course in internal medicine and medical specialties at the Mayo Clinic and Foundation, Rochester, Minnesota.

This course was originally a twelve-month course but owing to the war it has been accelerated to three months' duration.

Dr. Mayhew will return to Oxford on July 1 and will resume his general practice there.

Dr. Mayhew graduated from the Hahnemann Medical College, Philadelphia, in 1935.*

Dutchess County

A meeting of the county society in the pavilion of the Hudson River State Hospital, Poughkeepsie,

* Asterisk indicates that item is from a local newspaper.

[Continued on page 1132]

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Similar to human milk



★The name is never abbreviated; and the product is not like any other infant food—notwithstanding a confusing similarity of names.

The fat of Similac has a physical and chemical composition that permits a fat retention comparable to that of breast milk fat (Holt, Tidwell & Kirk, Acta Pediatrica, Vol XVI, 1933) ... In Similac the proteins are rendered soluble to a point approximating the soluble proteins in human milk ... Similac, like breast milk, has a consistently ZERO curd tension ... The salt balance of Similac is strikingly like that of human milk (C. W. Martin, M. D., New York State Journal of Medicine, Sept. 1, 1932). *No other substitute resembles breast milk in all of these respects.*

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A powdered, modified milk product especially prepared for infant feeding, made from tuberculin tested cow's milk (casein modified) from which part of the butter fat is removed and to which has been added lactose, olive oil, cocoanut oil, corn oil and fish liver oil concentrate

SIMILAC } SIMILAR TO HUMAN MILK

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[Continued from page 1130]

was held April 11. The scientific session consisted of a lecture entitled "Hay Fever," by Dr. Ira Wickner, consultant allergist, St. Luke's Hospital, Newburgh, allergist, Municipal Sanitorium, Otisville, and former head of the Fourth Division, Allergy Clinic, Bellevue Hospital; and a motion picture—"Modern Nutrition," featuring Dr. Norman Jolliffe, Dr. Tom D. Spies, of Alabama, Dr. W. H. Sebrell, of Maryland, and Dr. Robert Goodhart.

Erie County

Medicine, which has contributed tremendously to the preparation for and conduct of this war, will be called upon more than any other profession to help in the herculean job of world reconstruction, Dr. Morris Fishbein asserted on March 29 in Buffalo.

Addressing the Rotary Club in Hotel Statler, the spokesman for the medical profession packed facts and figures into an account of medicine's great strides, and then predicted even broader advances in the postwar world.*

Greene County

On April 3 the annual meeting of the Greene County Tuberculosis and Public Health Association was held in the Reformed Church chapel. A speaker, Dr. Edward X. Mikol, of Albany, plans for next year's program, the directors' meeting and election of officers, and movies for those not attending the directors meeting, were included on the program.*

Jefferson County

The regular meeting of the county society was held on April 12 at the Black River Valley Club, Watertown. Dinner was served at 6:30 P.M. The program included a lecture, "[illegible] of Acute Cardiovascular Emergencies, [illegible] E. De La Chapelle, professor of clinical medicine, New York University College of Medicine.

Kings County

The stated meeting of the county society was held on March 20 at 8:45 P.M. in MacNaughton Auditorium. Dr. Morris Ant, associate physician at Beth El and Kings County Hospitals, gave a lecture entitled "The Basal Metabolic Test—a New Concept in Interpretation." This was followed by "Newer Concepts in the Mechanism and Treatment of Head Injuries," by Dr. E. S. Gurdjian, associate professor of surgery (neurosurgery), Wayne University, Detroit.

• • •

Dr. Edmund Vincent Cowdry, professor of anatomy, Washington University School of Medicine, delivered the Adam M. Miller Memorial Lecture at Polhemus Memorial Building on April 23. The lecture, entitled "Microscopic and Chemical Properties of Precancerous Lesions," was sponsored by the Long Island College of Medicine.

Madison County

The regular Spring meeting of the county society was held on April 11, at the Hotel Oneida, Oneida.

Dinner was served at 6:30 P.M., with the members of the Woman's Auxiliary and wives of the physicians as guests.

The business and scientific program was held at 8:00 P.M. and a short business meeting preceded the reading of papers.

The papers of the evening were upon "Pregnancy and the Rh Factor," which were presented by Dr. Raymond J. Pieri, professor of clinical obstetrics, Syracuse University College of Medicine, and Dr. Robert C. Schwartz, instructor in clinical pediatrics, Syracuse University College of Medicine. This program was arranged by the Council Committee on Public Health and Education of the Medical Society of the State of New York.

Monroe County

Dr. Albert D. Kaiser, who assumed the position of Rochester's health officer on April 1, was appointed a full professor of child hygiene on the faculty of the University of Rochester School of Medicine and Dentistry on March 30.

Dr. Kaiser has been associate professor of pediatrics since the school started.

Dr. George H. Whipple, Dean, stated that appointment of Dr. Kaiser to full professorship was in recognition of his long service to the school and his role as health officer.

Dr. Kaiser, a member of the Board of Trustees of the university, is a graduate of the class of 1909.

• • •

Hospitals should be distributed "in proportion to the need rather than in proportion to the concentration of wealth," in the opinion of U.S. Surgeon General Thomas Parran.

Speaking on March 31 at a county society dinner honoring Dr. Arthur M. Johnson, retiring Rochester city health officer, Parran outlined a postwar health program which included: a sanitary environment free from sources of pollution and disease bearers; more hospitals and three thousand health centers for preventive health work; expanded public-health service; better training and distribution of doctors, dentists, and nurses; intensified and better coordinated research of diseases for which there is at present no method of prevention or control; and better distribution of the cost of medical care.*

Nassau County

One of the principal functions of pathology is to afford a scientific and accurate approach to the diagnosis of disease and to remove all guesswork from medical treatments, Dr. Theodore J. Curphey, Nassau County medical examiner, asserted in an address at the Hempstead Kiwanis Club on March 22.

Since 1900, many important advances have been made in surgery but behind the scenes, in the laboratories, pathologists have been working to bring forth some of the marvelous drugs, such as penicillin and the sulfonamide, which have greatly advanced medical science, Dr. Curphey pointed out.*

• • •

The regular monthly meeting of the county society was held on March 27 at 9:00 P.M. in Mercy Hospital auditorium, Rockville Centre. Dr. Clarence C. Little, managing director of the American Cancer Society, spoke on "Today's Philosophy in the Diagnosis and Treatment of Cancer."

New York County

Dr. John Scudder, director of the blood bank at the Presbyterian Hospital, arrived in Kunming, China, March 13, to organize the plasma service for the Chinese armies. In this work he will serve as a

[Continued on page 1134]



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[Continued from page 1132]

special consultant to Hsu Hsilin, surgeon general of the Chinese Army Administration. Dr. Scudder is on leave of absence from his position at the Columbia University-Presbyterian Hospital Medical Center. The first Chinese blood bank, trained by Dr. Scudder at Presbyterian Hospital, has been functioning in Kunming since July 12, 1944, and has been supplying plasma to Chinese troops in Yunnan. The bank [illegible] New York and was the first in the [illegible] by Chinese doctors, nurses, and technicians to prepare plasma for the armies of China. After a trial run in New York it was transferred to China. Dr. Scudder will assist the bank to overcome technical difficulties and to increase its output.

* * *

Dr. Harry Pratt Smith, professor of pathology in the University of Iowa, has been appointed professor and executive officer of the pathology department in Columbia University's School of Medicine.*

* * *

Dr. George T. Pack has recently been decorated by the Brazilian government as an "Officer of the Southern Cross."

* * *

The Annual Rothschild Lecture was delivered at Beth Israel Hospital by Dr. Frank H. Lahey, of Boston, on April 24 at 8:30 P.M. The subject of the lecture was "The Management of Thyroid Disease, Some of the New Developments, Including a Review of Our Experiences with Thiouracil."

* * *

Organization of a committee of representatives of several large chemical and pharmaceutical concerns to raise $500,000 for "badly needed expansion" of the library of the New York Academy of Medicine was announced on March 20 by Carleton H. Palmer, chairman of the board of E. R. Squibb & Sons, who is chairman of the fund-raising committee.

The fund, Mr. Palmer said, would permit construction of a nine-floor addition to the stack room, which will increase capacity to 374,000 volumes. It would also provide for a new catalogue of 2,800,000 cards, and improved handling, delivery, photostating, and bibliographic service.

The academy's medical library is the second largest and most used in the Western Hemisphere, Mr. Palmer pointed out. It is open to all who seek its aid, and handles about 40,000 inquiries a year. It provides the necessary up-to-the-minute data from which all new research must begin.*

* * *

Postwar expansion of several of the hospital units of the Columbia-Presbyterian Medical Center was announced on March 23 by Charles P. Cooper, president of the Board of Managers of the Presbyterian Hospital, in the annual report of the center.

Plans have been completed for an addition of one hundred and twenty rooms to Maxwell Hall, the student nurses' residence, which will release one ward floor in the Presbyterian building now housing student nurses. Further plans call for an extension of the Vanderbilt Clinic, the addition to Harkness Pavilion of a number of moderately priced private rooms, and similar changes in the Babies Hospital, the Neurological Institute, and the Eye Institute. Additional operating rooms and laboratory facilities will also be provided.

Three new units are included in New York City's proposals for the future development of city-owned and operated buildings for hospital care and research. These include completion of the Florence Nightingale Hospital for cancer patients, a new public health institute for teaching and research, and a hospital of about three hundred and fifty beds to provide care for tropical and communicable diseases. They will be located on sites at the Medical Center made available by the Presbyterian Hospital and Columbia University.*

* * *

The College of Medicine of New York University and Irvington House, a sanitarium for cardiac children located at Irvington-on-Hudson, jointly announced a medical affiliation on March 27 to provide additional care and rehabilitation for underprivileg[illegible] from heart disease.

The [illegible] will be responsible for the direction, supervision, and administration of the medical and research program at Irvington House. Young doctors will be trained there in the early recognition and treatment of rheumatic heart disease.

One major result expected from the new affiliation, according to Dr. Donal Sheehan, acting dean of the College of Medicine, is an expansion of the sanitarium's research activities in the cause, prevention, and treatment of rheumatic fever. In the last three years promising studies in the prophylactic use of sulfa drugs have been conducted at Irvington House, and that type of work will be continued.

Founded twenty-five years ago, Irvington House has provided care for more than three thousand boys and girls who were sent there by forty hospitals of Greater New York and Westchester. The sanitarium will continue its pioneering work in preventing and correcting youthful maladjustment due to physical handicap from heart disease, while the victims are still young and responsive to adjustment.

Although the New York University Medical College will have full medical responsibility for the direction of the institution, Irvington House will continue to depend upon an annual appeal for voluntary contributions for its financial support.*

* * *

A new service designed to help discharged Army and Navy doctors get offices, homes, furniture, and scientific equipment was announced on March 26 by *James E. Bryan, executive secretary of the* county society.

Plans have been approved by the society's directors and were reported to the seven thousand readers of its official bulletin, *New York Medicine*, in the April 5 issue.

Outlined by the society's new committee on public relations, under the guidance of Dr. John De Paul Currence, of the New York Post-Graduate School and Hospital, the program includes finding "part- or fulltime employment in governmental or private service," on which the committee has already been working, and "opportunities for postgraduate instruction." Mr. Bryan said a Medical Veterans Aid Fund, to be raised through donations of members, would give noninterest-bearing small loans to

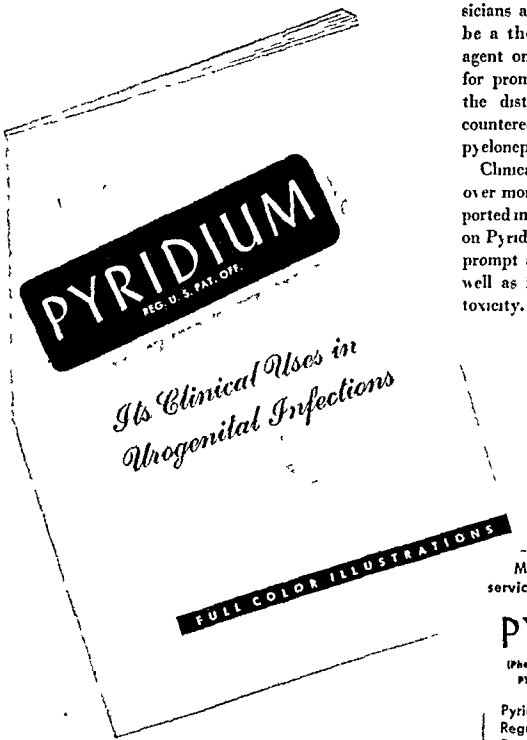
[Continued on page 1136]

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[Continued from page 1134]

tide a veteran over until his Government appropriations arrive.*

* * *

Col. Percy Klingenstein, chief of surgical division, Third General Hospital, spoke on "Medical Experiences of the Third General Hospital" on April 24 in the Blumenthal Auditorium, Mt. Sinai Hospital.

* * *

The William Henry Welch Lectures were delivered at Mt. Sinai Hospital, in the Blumenthal Auditorium, on April 26 and 30 by Dr. Edwin J. Cohn, professor of biochemistry and head of the department of physical chemistry, Harvard Medical School. The first lecture was "Separation, Concentration, and Characterization of Blood Derivatives"; the second was "Natural Functions and Clinical Uses of Blood Derivatives."

Oneida County

The monthly meeting of the Utica Academy of Medicine was held on March 15 at the Hotel Utica. Maj. Louis Dantzig, from Rhoads General Hospital, spoke on "Lichen Planus." This was followed by "The Physician and the Rh Factor," by Dr. Harold Pender. The next meeting was held on April 19 in the Hotel Utica. Dr. Howard Frank Root, of Boston, associate in medicine, Harvard Medical School, discussed "Diabetic Coma." Dr. Richard H. Hutchings, of Utica, then spoke on "Psychosomatic Medicine."

* * *

The regular meeting of the county society was held in the Hotel Utica on April 10. Dr. Ellery G. Allen, associate professor of clinical medicine and assistant professor of clinical pathology, Syracuse University College of Medicine, gave a lecture entitled "General Résumé of the Hematological Disorders Including the Anemias."

Necrology

Sol J. Applebaum, M.D., physician and consultant to the University of Rochester School of Medicine and Dentistry, died on April 9 at Miami Beach, Florida. He was 64 years old. Born in Poland, he received his medical degree from Johns Hopkins Medical School in 1908. After serving as intern at the Western Pennsylvania Hospital in Pittsburgh, he began practice in 1910 in Rochester, where he held various posts with the Rochester General Hospital. He was former attending obstetrician and assistant surgeon at Monroe County Hospital, and also served on the staffs of the Park Avenue Hospital, Rochester State [illegible] and the Roches[illegible] former director of the Rochester Welfare Department Medical Bureau, and a former president of the Monroe County Medical Society, a member of the Medical Society of the State of New York, the American Medical Association, and the Rochester Academy of Medicine.

Joseph S. Bendetson, M.D., of Brooklyn, died on March 6 at the age of 53. Dr. Bendetson was graduated from the University and Bellevue Hospital Medical College in 1920, and served his internship at the Brooklyn Jewish Hospital, where he later became adjunct physician. He was also associate physician at the Jewish Hospital for Chronic Diseases. He held membership in the Medical Society of the State of New York and the American Medical Association.

Lewis E. Bratt, M.D., of Akron, died suddenly on March 23 of coronary thrombosis. He was 63 years old. A native of Akron, Dr. Bratt was graduated in 1911 from Loyola University School of Surgery and Medicine, Chicago. After practicing ten years in Roanoke, Illinois, he returned to Akron, where, in addition to his other duties, he became physician of Akron High School and the Newstead Township schools. At the time of his death he was an officer of the Akron Health Board.

John D. Hamill, M.D., of Brooklyn, died on April 14 at the age of 66. He was a former member of the medical staff of the Misericordia Hospital in Manhattan and a specialist in x-ray technic. Dr. Hamill received his medical degree from Cornell Medical College in 1901.

Antonio Elias Malavazos, M.D., of New York City, endocrinologist, died on April 20 of a heart ailment at the age of 56. Born in Sparta, Greece, Dr. Malavazos was graduated from the University of Athens in 1911 and did postgraduate work at the University of Vienna for several years. He began his medical career in the Hippocrates Clinic, Athens, in 1911 and served as a medical officer in the Greek Army from 1912 to 1920. After coming to this country in 1924 he became assistant visiting physician at the Metropolitan Hospital, clinical assistant at the Polyclinic Hospital, and a member of the staff of the Newark Beth Israel Hospital.

Frank A. Nobiletti, M.D., of Kew Gardens, Queens, died on April 21 of pneumonia at the age of 34. Dr. Nobiletti received his medical degree from the College of Physicians and Surgeons of Columbia University in 1936. He interned at Bellevue Hospital and was later resident surgeon in fractures at the Presbyterian Hospital. At the time of his death he was instructor in surgery and fractures at that hospital, and was also on the staff of the Seton Hospital in Manhattan, Mary Immaculate, Queens General, and Triborough hospitals in Queens, and the Lutheran Hospital in Brooklyn. He was a fellow of the American College of Surgeons, a diplomate of the American Board of Orthopedic Surgeons, and a member of the Queens County and New York State medical societies and the American Medical Association.

Samuel I. Seidenberg, M.D., of Bronx, died on February 4 at the age of 65. Dr. Seidenberg received his medical degree from the Imperial University in Odessa, Russia, in 1911. He was a member of the North Bronx, the Bronx County, and the State medical societies and the American Medical Association.

Penicillin DOSAGE TABLE*

INDICATIONS	INITIAL DOSE (UNITS)	CONTINUING DOSAGE (UNITS)	UNITS IN 24 HR.	REMARKS
Serious Infections (staphylococcus, clostridium, hemolytic streptococcus, anaerobic streptococcus, pneumococcus, gonococcus, anthrax, meningococcus) Adults and children	15,000 to 20,000	(a) Intravenous drip 2000 to 5000 every hr.	40,000 to 120,000 or more	(a) Dissolve ½ of 24 hr. dose in 1 liter (1000 cc) normal saline; let drip at 30 to 40 drops per minute.
		or (b) Intramuscularly: 10,000 to 20 000 every 3 or 4 hr.	40,000 to 120,000 or more	(b) Concentration 5000 U. per cc. normal saline.
		or (c) Intramuscular drip	40,000 to 120,000 or more	(c) Total daily dose in 250 cc. normal saline.
Infants	5000 to 10,000	3000 to 10,000 intramuscularly every 3 hr.	20,000 to 40,000 or more	Each dose in 1 or 2 cc. of normal saline.
Chronically infected compound injuries, osteomyelitis, etc. Adults and children	5000 to 10,000	10,000 every 2 hr or 20,000 every 4 hr. intramuscularly or intravenously. Larger doses may be necessary at times.	40,000 to 120,000 or more	Concentration for intramuscular inj: 5000 U. per cc. normal saline. For intravenous inj. 1000 to 5000 U. per cc. Supplement with local treatment.
Sulfonamide Resistant Gonorrhea	20,000 every 3 hr. intramuscularly for 5 doses		100,000	Results of treatment should be controlled by culture of exudate.
Empyema Adults and children	30,000 to 40,000 once or twice daily into empyema cavity		30,000 to 80,000	Dissolve in 20 to 40 cc. normal saline and inject into empyema cavity after aspiration of pus
Meningitis Adults and children	10,000 once or twice daily into subarachnoid space or intracistemally		10,000 to 20,000	Concentration 1000 U. per cc. normal saline.
Bacterial Endocarditis Adults and children	25,000 to 40,000	25,000 to 40,000 every 3 hr. intramuscularly	200,000 to 300,000	Continuous treatment for 3 weeks or longer. In a few cases the intravenous drip is more advantageous.

*Based upon recommendations by Chester S Keefer, *War Production Board Penicillin Leaflet*, Apr 1, 1945; and by Wallace E. Herrell and Roger L. J Kennedy, *Journal of Pediatrics*, 25 505, Dec., 1944.

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Hospital News

U.S. to Buy Crugers Park as Hospital Site

THE Federal Government exercised an option on April 16 to buy Westchester County's Crugers Park for a two-thousand-bed veterans' hospital. County officials said they were informed it would be one of the largest hospital developments of its kind in the nation, costing $6,000,000 for construction, and possessing 400 acres of woodland, flower gardens, vegetable plots, beaches, and historic sites. Yet it will be within forty miles of New York, accessible by main-line trains, steamers, and buses.

Crugers Park, in Cortlandt Township three miles south of Peekskill, comprises 251 acres bordering the Hudson River on the west and the Albany Post Road on the east. The New York Central Railroad's main line skirts one side of the property and the Hudson River Day Line has piers at near-by Indian Point. In addition to the park property, the Veterans Administration has options on adjacent private lands that will increase the size of the hospital grounds 400 to 500 acres.

Soon after an agent of the Veterans Administration began searching Westchester early last winter for a hospital site the Peekskill Chamber of Commerce, American Legion, and other groups began working for the selection of Crugers Park. The only organized opposition came from the Westchester County Historical Society, which objected especially because the future of the historic Boscobel mansion at the park would be in jeopardy if the hospital were built.

Boscobel, built in the eighteenth century, is operated temporarily by historians under an arrangement with the County Park Commission. Mr. H. C. Gerlach, County Executive, said that efforts would be made to have the Federal Government preserve the place as a historic shrine and museum for hospital patients and their friends. He asserted that Grasslands Hospital, at Eastview, largest general hospital between New York and Albany, has only 800 beds, and that the utilitarian, educational, and recreational needs at the veterans hospital would be proportionately greater.

Six Hospital Ships Join Navy

THE U.S.S. Tranquillity, first of a new class of Navy hospital ships being converted from Maritime Commission C-4 hulls, was inspected on April 16 at the Atlantic Basin Iron Works in Brooklyn.

The Navy is acquiring six of the 15,000-ton air-conditioned ships with a speed of seventeen and a half knots. They will be known as the Haven class.

The Tranquillity will be the first of the converted ships to join naval forces in the Pacific. She will be followed soon by the Haven, with three more in May and the sixth about mid-June.

The ships will retain only the basic original features of the C-4. The vessels will have hospital beds for 802 patients, including 742 enlisted men and 60 officers. Under emergency conditions, however, the craft may carry several hundred more cases. A ship's company will consist of fifty-eight officers, thirty nurses, two women Red Cross workers, twenty-four chief petty officers, two hundred and thirty crew members, and two hundred and thirty-eight hospital ratings.

The Tranquillity will be commanded by Capt. Merritt D. Mullen, USNR, a veteran of the Merchant Marine. Senior medical officer will be Capt. B. W. Hogan, USN, with Lieut. Sylvia Koller, USN, as chief nurse.

Features of the Haven class are: full air-conditioning, for the first time in any Navy ship, throughout the hospital and crew's quarters; single, double, or multiple litter hoists, five on each side of the vessel, to expedite loading of wounded, and large medical storerooms that will permit a ship to be a medical supply depot in advanced areas.

Hospitals Fight on Two Fronts

FIGHTING on two fronts, civilian hospitals celebrated National Hospital Day, 1945, on May 12 in a nation requiring their services abroad and at home.

Their record to date includes: 54,000 hospital-trained nurses and 60,000 hospital-trained doctors plus many thousands of technicians serving our fighting men in the services; and the admission of over 12 per cent of the American population to community hospitals in 1944—one every two seconds—for civilian hospital care.

"The past year has seen an increase of almost a million patients admitted to the hospitals of this country," stated Dr. Donald C. Smelzer, president of the American Hospital Association, in announcing May 12 commemorations by hospitals over the country. "Despite a decrease in the total number of voluntary hospitals, the bed capacity in them has actually grown by several thousands. Shortages of personnel and difficulties in obtaining supplies, added to this increased demand for hospital care, have necessitated patience and understanding on the part of administrators and the community as well.

"May 12, the one hundred and twenty-fifth anniversary of the birth of Florence Nightingale, who initiated modern hospital practices, nevertheless finds the three thousand, five hundred voluntary hospitals in the Association aware of increased public interest in hospital care and making plans for expansion and improvement. As agents of society, community hospitals must keep pace with the desires of that society. The nation-wide analysis of hospital facilities by the independent Commission on Hospital Care, the contemplated billion dollar expansion plans of hospitals, the rapid extension of hospital-sponsored, nonprofit Blue Cross prepayment plans for hospital care, as well as the vital role played by hospitals in the health care of our men in uniform—all give conclusive proof that hospitals, on National Hospital Day, are worthy of the nation's support and interest."

[Continued on page 1140]

DIET PROBLEMS IN GERIATRICS

As digestive efficiency declines, along with other faculties, there may be increasing difficulty in meeting the need for foods with bland nutritional properties. The requirement for adequate protein is also one that should not be neglected in the diet of the older patient.

Knox Gelatine (U.S.P.) is helpful in maintaining the nutritional optimum. It is all protein, containing no sugar or artificial, acid flavoring. Used in warm milk, as in the drink described below, it is often prescribed to aid sleep. And in the many dietary recipes developed for Knox Plain Gelatine, patients find a pleasing variety.

Knox Gelatine Milk Drink: *Soak one envelope of Knox Gelatine in ½ cup milk. Stir over hot water until gelatine thoroughly dissolves. Add ½ cup of cold milk Flavor with vanilla or chocolate syrup if desired Mix and drink.*

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Improvements

[Continued from page 1138]

Directors of the Boulevard Hospital, Queens, announced on March 14 that the War Production Board had authorized construction of a new wing. It will be named in memory of Dr. Jacob N. Feinberg, one of the hospital founders.*

• • •

It was reported on March 6 that the Sidney Hospital, in Unadilla, plans to build a new wing to the existing building in the near future. Plans call for the wing to be built on the front of the present structure.

At present, the hospital is not large enough to accommodate certain types of patients; for example, there is no children's ward. In the new wing this will be provided for with the construction of a six- to eight-bed ward. In addition there will be ten to twelve beds for medical and surgical patients. Altogether, the plans call for about twenty additional beds.*

• • •

The Middletown Sanitarium became custodian on March 31 of an iron-lung respirator purchased by the Middletown Elks Lodge for the community. It was the second respirator purchased by the organization in seven years. Horton Hospital, Middletown, is custodian of the first lung, which has been in use since 1938. A brief formal presentation program was held in the reception room of the Sanitarium.*

• • •

An automatic oxygen tent of radically new design—the first of its kind in the Triple Cities area—was installed on March 26 at Lourdes Hospital, Binghamton.

The new equipment provides a combination of oxygen therapy and air-conditioning for a patient and does not require icing or constant attention, as does the familiar type of oxygen tent.

The equipment was given to the hospital in memory of the late Dr. William A. Behan, chief of staff of Lourdes Hospital, who died January 23. The donors were Morris S. Cohen, of Binghamton, and his son and daughter-in-law, Mr. and Mrs. Charles Cohen.

Equipped with electrical refrigerating facilities, the oxygen tent can be put into operation merely by the insertion of a plug into an ordinary wall socket. The operator sets a dial and the temperature control is maintained automatically.

When used as an air-conditioning unit for a patient, the unit has proved useful as an aid in the treatment of respiratory cases, particularly in hot, humid weather.

One of its functions is to draw vitiated air from within the canopy back into a sealed cleaning chamber. In this manner the air is cleansed, cooled, dehumidified, and changed four times a minute.*

• • •

Construction is under way at Rhoads General Hospital, Utica, to provide space for five hundred and fifty additional beds for wounded soldiers being returned from overseas, it was announced on April 2 by Col. A. J. Canning, commanding officer.

The project, costing more than half a million dollars, calls for the erection of eighteen new buildings to house the enlisted men and women of the medical detachment at the hospital, and the conversion of eleven barracks, now used as living quarters, into wards.

Completion of the project in June, Colonel Canning said, will increase the bed capacity of Rhoads to two thousand, five hundred. With casualties returning to the United States at the rate of fifty an hour, the additional facilities are urgently needed, he declared.

The new buildings, all of which are of a modified theater-of-operations type of construction, will resemble, when finished, all other Rhoads Hospital buildings. Of frame construction, they will have asphalt roofing and outside walls of tan, mineral-surfaced siding.*

At the Helm

Appointment of J. Dewey Lutes, of Bethesda, Maryland, as administrator of the Yonkers General Hospital, has been announced by John G. Kelly, president of the board.

The appointment was effective April 1.

Mr. Lutes has had more than twenty-two years of experience in hospital administration, his first twenty years having been spent in Chicago, with the Lake View, Ravenswood, and Presbyterian hospitals.

He left the Presbyterian Hospital to go to Bethesda, to construct, equip, and staff the Suburban Hospital, which he opened in January, 1944, and has managed since then.

Mr. Lutes is an organizer of the American College of Hospital Administrators and its first director. He is a life member of the American Hospital Association, and served as a member of its house of delegates and on various committees.

A past president of the Chicago Hospital Association and the Hospital Association of Illinois, he served as chairman of a Chicago committee that organized and incorporated a hospital insurance plan, and as vice-president until he left Chicago.*

• • •

Dr. Arthur M. Johnson, who retired April 2 as Rochester health officer, is a new member of the board of visitors of Rochester State Hospital. Appointed April 1 by Governor Dewey, Dr. Johnson will succeed M. Bruce Potter, Pittsford.*

• • •

George B. Bernheim was elected president of Mount Sinai Hospital April 10 at a meeting of the hospital's board of trustees. Joseph Klingenstein, George Lee, and Alfred Rose were elected vice-presidents; Joseph F. Cullman, Jr., was elected treasurer; and Richard Goldsmith, secretary.

Mr. Bernheim, who succeeds the late Waldemar Kops, who died January 13, has been a member of

*Asterisk indicates that item comes from a local newspaper.

[Continued on page 1142]

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CLARENCE A. POTTER, M. D., *Resident Physician*

[Continued from page 1140]

the board since 1922, and second vice-president since 1938.*

* * *

At the Annual Meeting of the New York Society for the Relief of the Ruptured and Crippled, Dr. Carlisle S. Boyd, was appointed Senior Consulting Physician and Physician-in-Chief Emeritus of The Hospital for Special Surgery, formerly known as The Hospital for the Ruptured and Crippled. Dr. Boyd had been head of the department of medicine and pediatrics for over thirty years.

* * *

John B. Kelly, for nearly fifteen years superintendent of the New York State Reconstruction Home, West Haverstraw, applied for retirement on April 1 after thirty-three years in the state service and will leave West Haverstraw as soon as his successor arrives.

In July, 1930, when a $2,000,000 construction program was under way, Mr. Kelly was "loaned" for four or five months by the Division of Standards and Purchase to the Rockland County institution. The temporary loan grew into years during which Mr. Kelly made an outstanding record as superintendent of one of the finest institutions in the world for the treatment of crippled children, especially those affected by poliomyelitis.

When Mr. Kelly arrived at the institution, it had a capacity of 190 patients, but most of the buildings were of wooden construction and had been condemned by the state. He was assigned for a special job and sat in on plans for the general layout of the new institution and was present all during the construction of the east and west wards, the connecting corridors, the auditorium, the dining rooms and kitchens, and the physiotherapy pools which have proved one of the best known methods of rehabilitating crippled children.*

Newsy Notes

Thomas J. Watson, vice-president of the Roosevelt Hospital in New York City, and cochairman of its current $1,000,000 service-expansion fund campaign, presided on April 17 at a luncheon meeting at the headquarters of the International Business Machines Corporation. The campaign seeks funds to extend its accident-emergency, outpatient clinical, and semiprivate facilities.

* * *

A $5,000 grant has been given by Martha W. Hoster of Columbus, Ohio, to St. Vincent's Hospital, New York City, for the Laboratory of Cellular Physiology and Pathology to conduct studies on Hodgkin's disease with collaborators at New York University, Ohio State University, and Walter Reed General Hospital, Washington, D.C.

This fund will be administered by A. Rottino, of St. Vincent's Hospital, and C. G. Grand, of New York University.

* * *

A residency or assistantship is available in the department of pathology at St. Vincent's Hospital, New York City.

The service is very active. The applicant will also have the opportunity to work in the Hodgkin's Disease Center if he so desires. The residency is approved by the A.M.A.

* * *

Mayor La Guardia signed on April 18 in his office at City Hall the contract under which the city will construct and equip a $1,500,000 cancer hospital adjacent to the Memorial Hospital for the Treatment of Cancer and Allied Diseases. The city institution, to be built after the war on land deeded by the Memorial Hospital, will be staffed by the private institution.

The new city hospital will have a capacity of three hundred beds. The city will construct, operate, and maintain the buildings. Medical and professional services will be supplied by the Memorial Hospital staff.*

* * *

The training program of Adelphi College School of Nursing, Garden City, is providing five hundred badly needed student nurses to seven nearby hospitals and the Nassau County Department of Health, Miss Mildred Montag, director of the school, has announced.

Under the program, the school established agreements with the seven institutions and the health department so that its students may be rotated from one hospital to another to obtain the maximum practical training during their course. With the wartime shortage of nursing help, it has enabled the hospitals to maintain effective nursing service which would have been impossible without student help.

Established in January, 1943, the school was designed to increase the nurse educational opportunities in New York. Agreements were made to train students, under direct school supervision, at Mercy Hospital, Rockville Centre; Meadowbrook Hospital, Hempstead; the Nassau County Hospital for Tuberculosis, Farmingdale; Queens General Hospital, Mineola; Central Islip Hospital, Central Islip; United Hospital, at Port Chester; and Queens General Hospital, Jamaica.*

* * *

Plans for replacing the frame portion of the Wyoming County Community Hospital with a structure of fireproof construction is being considered as arrangements also proceed for erection of new quarters to house student nurses, class rooms and laboratories, library, and recreation rooms.

Preliminary plans for this latter structure have already been approved by the State Planning Committee and will now come before the Board of Supervisors for their approval.*

* * *

The major contribution, $400, from funds raised by the Republican Women of the Legislature at their annual dance, will go to Rhoads General Hospital to aid in equipping a darkroom for use of patients in developing and printing film, Miss Dorothy Emerson, Cayuga, president, announced on March 29.*

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Health News

Active Year Shown for Visiting Nurses

Four hundred thousand visits to 88,808 sick persons in Manhattan, the Bronx, and Queens were made in 1944 by the staff of the Visiting Nurse Service of New York, James L. Harrison, president, reported on March 28 at the service's annual meeting. Officers and board members whose terms expired were re-elected.

Miss Marian G. Randall, executive director, reported that the staff had seventy vacancies that cannot be filled because of demands of the armed services, but had lived up to its tradition that "no call goes unanswered." Hours for the staff have been extended from forty to forty-four, with volunteers and practical and cadet nurses assisting, she explained.

Last year the organization gave some service to one third of all babies born in the three boroughs. In addition, three thousand expectant mothers received instruction in baby care, while the service gave 23,000 hours to war plants in teaching health principles and first aid.*

Fees Paid to Diplomates of Specialty Boards Increased by E.M.I.C. Program

Ever since the beginning of the Emergency Maternity and Infant Care Plan in New York City in July, 1943, attempts have been made by the Department of Health to modify the plan in accord with recommendations of various medical and hospital groups. One of the recommendations made was that physicians with superior training be paid increased fees. Approval for such an increase was finally secured. As of December 15, 1944, physicians who are diplomates of their respective specialty boards are entitled to a 50 per cent increase in the fee for services given to E.M.I.C. patients. A schedule of these facts is available at the Health Department E.M.I.C. office.

Additional administrative staff now makes it possible for the Health Department to process payments much more rapidly than formerly. Doctors are urged to send in their bills promptly by filling in the E.M.I.C. invoices forwarded to them.

From July, 1940, to March 1, 1945, the E.M.I.C. Plan has paid for the care of 27,483 maternity cases and 3,218 infant cases. A total of $1,919,860.44 has been paid for medical and hospital care rendered these patients. The average cost for maternity cases, including medical and hospital care, has been $100, and for infant cases $40.

At the present time the Plan in New York City does not provide payment to physicians for well-baby supervision. Physicians, however, may refer E.M.I.C. patients to child-health stations of the Department of Health which provide well-baby service including immunizations.

Further information about the Plan and application blanks may be secured at the E.M.I.C. Office, 100 Center Street, New York 13, New York, telephone WOrth 2-6900, Extension 321.

Announcement of Fellowships in Health Education—1945

Fellowships for a year's graduate study in health education leading to a master's degree in public health are being offered to qualified men and women by the U.S. Public Health Service through funds made available by the National Foundation for Infantile Paralysis. The sponsors of the fellowships are concerned chiefly with meeting the existing shortage of trained health educators and preparing to meet future demands both in this country and abroad for qualified personnel having a thorough understanding of both public health and education.

The fellowships provide a year's study in public health education at the University of North Carolina, Yale University, or the University of Michigan. This training includes an academic year (eight or nine months) in the Schools of Public Health, and three months of supervised field experience in community health education. Courses studied in the Schools of Public Health include: epidemiology, public health statistics, public health administration, public speaking, health education, public health education problems, and school health education. Upon successful completion of the course, the candidate is eligible for a master's degree in public health education.

The fellowships provide a stipend of $100 a month for the entire period of academic and field training, tuition at one of the above three universities, and travel expenses for field experience. Candidates must pay their own travel to and from the university at the beginning and end of training.

Effective for the Fall collegiate quarter of 1945, the fellowships are available to qualified men and women between the ages of 22 and 40 who are citizens of the United States. Candidates must meet the entrance requirements of the Schools of Public Health, which include a bachelor's degree from a recognized college or university. Desirable prerequisites include training and/or experience in the basic sciences, sociology, education, and psychology, plus the ability to use the English language effectively and to work with all kinds of people. Address inquiries to the U.S. Public Health Service, Washington 14, D.C.

Farris Wins National Research Foundation Award

Edmond J. Farris, Ph.D., of Philadelphia, Pennsylvania, was selected by the National Research Foundation for the Eugenic Alleviation of Sterility, Inc., to receive its special 1945 award of $500 together with a commemorative medal in recognition of his work in the physiology of reproduction.

Presentation was made c[illegible] 27, 1945, at the meeting of the [illegible] Heredity and Eugenics at [illegible] at that time gave a lecture on "Studies in Determining Time of Ovulation."

* Asterisk indicates that item is from a local newspaper.

[Continued on page 1146]

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[Continued from page 1144]

State and Territorial Health Officers' Conference

The forty-third annual conference of the United States Public Health Service with the State and Territorial health officers was held April 9, 10, and 11 in the National Academy of Sciences, Washington, D.C. The meeting was required by law, and therefore was approved by the Committee on Conventions.

General sessions of the conference were open to all interested persons but attendance by out-of-town visitors was not encouraged in view of travel restrictions.

Mobile Operating Room is Perfected by the Navy

The Navy unveiled on March 22 its answer to the urgent need for a complete, mobile operating room permitting major surgery in front-line areas of the Pacific.

The self-contained unit, measuring 8 by 10 by 20 feet inside, is mounted on a trailer which can be towed by any vehicle.

The Navy said twenty-eight such units have been ordered. Eighteen will be delivered to the Pacific in the next thirty days, three to a division. The other ten will be held in reserve for replacements.

The unit can be unloaded and ready for use within one hour.

Navy medical officers explained that any type of operation can be performed in it. They said it will be of immeasurable benefit in providing surgical attention within the essential six hours after men are wounded.

After six hours, they explained, the chance of infection and subsequent fatality is increased seriously in many types of combat wounds.

Particularly in the Pacific area American forces know by experience not to move after nightfall because the chances of being shot even by friends are great. Therefore, wounded men brought in late in the evening frequently cannot be evacuated to ships or base hospitals for hours.*

Mass Dental Aid Is Postwar Plan

Mass protection against dental decay in children is envisaged as a postwar possibility by Dr. John W. Knutson, one of the public health surgeons engaged in the fluorine experiments of the United States Public Health Service.

Caries in children appeared as the first and worst dental problem in the country as a result of the draft, when one out of every twelve in the first 2,000,000 men examined were barred from military service because of dental defects, Dr. Knutson explained. Later, the Army needed men so badly it took over the prodigious task of their dental rehabilitation.

Surveying the dental decay situation, Dr. H. L. Dean, senior dental surgeon of the Public Health Service, learned that there is only from one-third to one-half as much dental decay in areas where there is fluorine in the drinking water as in areas where the water is fluorine-free.

The Public Health Service is making a double attack on dental decay through the addition of fluorine to city water systems and through the direct application of fluorine to the teeth of children.

Experiments and field studies of the service show that the protective treatment must be given during the first eight years of the child's life, while the teeth are forming. Fluorine has no effect on the teeth of adults.

Three years ago, in April and May, 1942, Dr. Knutson with Dr. W. D. Armstrong, in cooperation with the Minnesota Department of Health, started treating a pilot group of 300 school children in three Minnesota towns, with, of course, the consent and cooperation of their parents. They treated upper and lower teeth of half of the mouth of each child, painting a fluorine solution on the teeth, but leaving the other half untreated as a control. Over a two-year period, they found 40 per cent less decay among the treated teeth than among the untreated. Dr. Knutson expects to find this percentage still holding when he goes out there next month to make a third examination.

A broader experiment has now been set up, using a variety of fluorine solutions and different methods of testing, on two thousand school children of Rochester, Minnesota.

Dr. Knutson pointed out that the direct method of application might be used with sufficient frequency to give protection if it were done as a routine matter with each periodic dental examination and also each time a new tooth came in during the early years of childhood.

The Minnesota school children were treated from seven to fifteen times during a two-month period. This direct method would have to be used for the third of the country which gets its water supply from wells and springs.

For the other two-thirds of the country, however, there is the possibility of protection from dental decay through addition of one part per million of flourine to municipal water supplies, Dr. Knutson said. The results of this will not be fully known for eight or ten years, until the children affected are grown.

The Public Health Service, in cooperation with the State Department of Health in Michigan and the University of Michigan, is conducting a project of thus fluorinating the Grand Rapids, Michigan, water supply. It was started in January of this year.

The New York State Health Department is now conducting an independent survey of the same type at Newburgh. A third experiment is being considered in Canada.

Dr. Knutson said that the incidence of dental caries increases from South to North and that it is also very heavy along the Eastern seaboard.*

Cancer Campaign Launched

A campaign designed to acquaint the public with the cause, cure, and prevention of cancer has been launched through a joint effort by the Dutchess County Medical Society and the Dutchess County Health Association.

Dr. Helen Palliser, chairman of the medical society's cancer committee, and also a member of the board of directors of the Dutchess County Health Association, assigned speakers to talk to clubs and various organizations throughout the county. Letters were sent from the health association offices offering speakers to appear at regular meetings.*

[Continued on page 1148]

Speed—An Important Factor In Antianemia Therapy

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[Continued from page 1146]

The Problem of Aging

Columbia University College of Physicians and Surgeons announces that it will conduct research on the process of growing old. The study, which will be carried on by the department of pathology, will be financed by a grant of $30,000 from the Albert and Mary Lasker Foundation, designated as the Wendell Willkie Memorial Grant, and $85,000 contributed by the Josiah Macy, Jr., Foundation. According to the New York *Times* the department of pathology will study the underlying process of aging which results in the gradual loss of ability and in the progressively increasing death rate as the years roll by; the mechanism by which fat is deposited in the artery walls as part of arteriosclerosis, or hardening of the arteries; the depositing of collagen in artery walls in arteriosclerosis; the changes in tissue metabolism with increasing age; the changes in water balance and resistance to shock; the changes in circulation and capillary permeability; the renewal of worn-out tissues, and the enzyme content of tissues. A colony of rats and mice of all ages will be set up, a matter of two or three years, because the rats and mice must have time to grow old. They will be raised under ideal conditions, which means air conditioning, uniform lighting, and freedom from disturbing factors.

1945 Lasker Award to Be Given for Service in Field of Rehabilitation of Mentally Handicapped

The Lasker Award for 1945 will be given for an outstanding contribution to the rehabilitation of the mentally handicapped, it was announced on April 1 by the National Committee for Mental Hygiene. The committee is now receiving nominations with supporting data, to be presented to an anonymous jury selected each year for its competence to judge accomplishment in the field chosen.

The award of $1,000, established in 1944, is made annually in November by the Mary and Albert Lasker Foundation for meritorious service and significant contributions to promoting mental health and increasing public understanding of mental hygiene.

Col. William C. Menninger, M.C., Chief Consultant in Neuropsychiatry, Office of the Surgeon General, U.S. Army, was the first recipient of the award, for his outstanding contribution to the mental health of men and women of our armed forces.

Passano Award Goes to Dr. Cohn

As the result of a nation-wide poll among leaders in medical science, Dr. Edwin J. Cohn, professor of biochemistry at Harvard University, has been chosen as the first winner of the Passano Foundation award. Presentation of the $5,000 cash award will be made at a ceremony in historic Osler Hall of the Medical and Chirurgical Faculty of Maryland, in Baltimore, on May 16.

The Foundation, established in 1944 by the Williams and Wilkins Company, medical publishers, of Baltimore, proposes to aid the advancement of medical research, especially research that bears promise of clinical application. For the encouragement of such research the Foundation has established the award as one of its activities.

Dr. Cohn is distinguished for his work on the fractionation of blood. Beginning in 1919 with a study of blood and blood proteins, Dr. Cohn's research has progressed until it has yielded a spectacular group of five principal fractions of blood plasma which hold untold promise of usefulness in medical science.

Hortense Hilbert Appointed Director of Health Department Nursing Bureau

Health Commissioner Ernest L. Stebbins on March 20 announced the appointment of Hortense Hilbert, R.N., of Manhattan, as director of the Bureau of Nursing of the New York City Health Department. Miss Hilbert assumed her new post on April 1.

Previous to her appointment to the Health Department, Miss Hilbert was associate director of the National Organization for Public Health Nursing. From 1936 to 1942 she was Regional Public Health Nursing Consultant in the Children's Bureau of the U.S. Department of Labor, and before that was Public Health Nursing Consultant for the American Child Health Association. Miss Hilbert also served for four and a half years as assistant director of a child health demonstration conducted in Austria by the Commonwealth Fund, and in 1932 directed a nation-wide survey of public health nursing. She has also done extensive public health nursing work with state health departments.

Miss Hilbert is a graduate of the University of Minnesota School of Nursing, and did postgraduate work at Johns Hopkins University.

In assuming the directorship of the Bureau of Nursing, Miss Hilbert succeeds Ella M. Ashe, who has served as acting director of the Bureau since August, 1943.

National Society for Prevention of Blindness Elects Board Members

The National Society for the Prevention of Blindness has announced the election of the following new members to its Board of Directors: Clarence G. Michalis, Dr. R. Townley Paton, and Charles Sheard, Ph.D., director, Division of Biophysical Research, Mayo Foundation for Medical Education and Research, Rochester, Minnesota.

Announcement has been made, also, that Dr. Willis S. Knighton, New York ophthalmologist, will serve as chairman of the Committee on Glaucoma of the National Society for the Prevention of Blindness, succeeding the late Dr. Mark J. Schoenberg. Additions to the Committee on Glaucoma include Maj. Fred Heffinger, superintendent, and Dr. F. L. P. Koch, chief of the Glaucoma Clinic, Manhattan Eye, Ear and Throat Hospital, New York City.

Since its establishment in 1915, the National Society for the Prevention of Blindness has worked in close cooperation with the medical profession, especially ophthalmologists. The Society works for the protection of eyesight and the conservation of vision among the large majority of persons who have normal sight and the considerable number of partially sighted persons. Mrs. Eleanor Brown Merrill is the Executive Director. Headquarters are maintained at 1790 Broadway, New York City.

Infantile Paralysis Foundation to Help Training of Physical Therapists

A critical shortage of qualified physical therapists which endangers the proper care of infantile paraly-

[Continued on page 1150]

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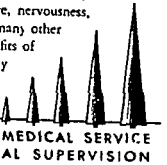
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[Continued from page 1148]

sis victims has caused the National Foundation for Infantile Paralysis to appropriate $1,267,600 for the training of these vitally needed specialists, Basil O'Connor, president announced on March 19.

Present-day medical treatment of patients with infantile paralysis demands more and more physical therapy, Mr. O'Connor explained. "A physical therapist is a technician who uses physical agents such as heat, electricity, light, exercise, rest, muscle training, and similar methods in contrast to the use of drugs, biologic, and surgical technics.

"Today there are only two thousand, five hundred qualified physical therapists, of whom more than half are in the armed forces. With earlier and more extensive use of such methods of treatment, so imperative in the treatment of infantile paralysis, twice the number already trained could be used for this disease alone. It is estimated that an additional five thousand could be used right now, not only for the treatment of infantile paralysis, but also for aiding recovery from many other diseases and disabilities."

Information and applications may be obtained by addressing the National Foundation for Infantile Paralysis, 120 Broadway, New York 5, New York, or the American Physiotherapy Association, 1790 Broadway, New York 19, New York.

Cardiology Course Offered at Montefiore Hospital

A postgraduate course in cardiology for the summer of 1945 has been offered at Montefiore Hospital, Bronx, in affiliation with Columbia University. The course, entitled "Elementary Cardiology," will be given from June 5 to August 14, at 10 A.M. on Tuesdays. The fee is $35. Drs. Abraham Jezer, E. Goldberger, Harry Gross, Joseph Ballinger, and others will conduct the course.

The purpose of this course is to give the general practitioner an introduction to the methods of diagnosis and treatment of heart disease. Chief emphasis will be placed on bedside teaching and demonstration of cases to small groups of students. The course, including demonstration of cardiac fluoroscopy, of measurements of venous pressure and circulation times, discussions on criteria of classification, on correlations with pathology and on principles of treatment, may be taken simultaneously with elementary electrocardiography and elementary cardiovascular roentgenology. It is a prerequisite to all subsequent courses in the integrated cardiology program. For further information, address the Dean, Faculty of Medicine, Columbia University, 630 West 168th Street, New York 32, New York.

WAR OBJECTORS LOAF TO PROVE DOCTOR'S THEORY

A new role for conscientious objectors—what might appear to be the pleasant task of spending two to six weeks resting in bed—has furnished medical science with evidence that too much bed rest upsets normal chemical adjustments of the body, it has been disclosed.

The experiments, tending to corroborate the Army Air Forces view that convalescence may be accelerated by giving patients physical and mental activity, were discussed before the Medical Society of the County of New York, 2 East 103d Street, by Maj. Donald A. Covalt, MC, executive officer, convalescent training division, Office of the Air Surgeon General.

But they left the problem of when convalescence begins still far from mathematically solved. Major Covalt commented that that still must depend on "how the patient feels" and "the clinical judgment of the doctor."

The latest chapter of the conscientious objectors' saga of this war, which has included exposure to drastic climatic changes, drinking sea water, and infection with typhus, influenza, and pneumonia, took place at the University of Minnesota.

There Dr. Ancel Keys, professor of physiology and physical education, subjected to laboratory tests for chemical balance a number of healthy conscientious objectors who had spent anywhere from a fortnight to a month and a half lying in bed and eating normally. The tests showed "it takes more than twice as much protein to keep a positive protein balance of a bed patient," and that it was "practically impossible to keep an otherwise normal patient in calcium balance while flat on his back."

Heart output also suffered. Dr. Keys found that a normal man, bed-ridden six weeks, will have an 11 per cent average decrease in heart size. The result, borne out in Army Air Force tests under similar conditions, showed that work capacity went down "very rapidly while the patient is in bed," Major Covalt said.

Major Covalt spoke on the second anniversary of the A.A.F. convalescent training program, which he recalled started when more than fifty thousand men were found "doing nothing but waiting" in military hospitals. Now it includes exercises and calisthenics, which may begin in bed two days after an operation, and mental activity in educational classes.

A study of 645 controlled cases of atypical pneumonia, Major Covalt recalled, showed a group recovering under the old method averaged forty-five days' hospitalization and a 30 per cent recurrence rate. A second group under planned convalescent training averaged only thirty-one days' hospitalization and a 3 per cent recurrence rate.—*N.Y. Her. Trib.*

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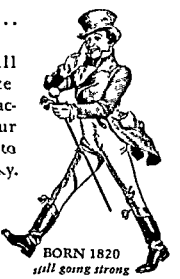


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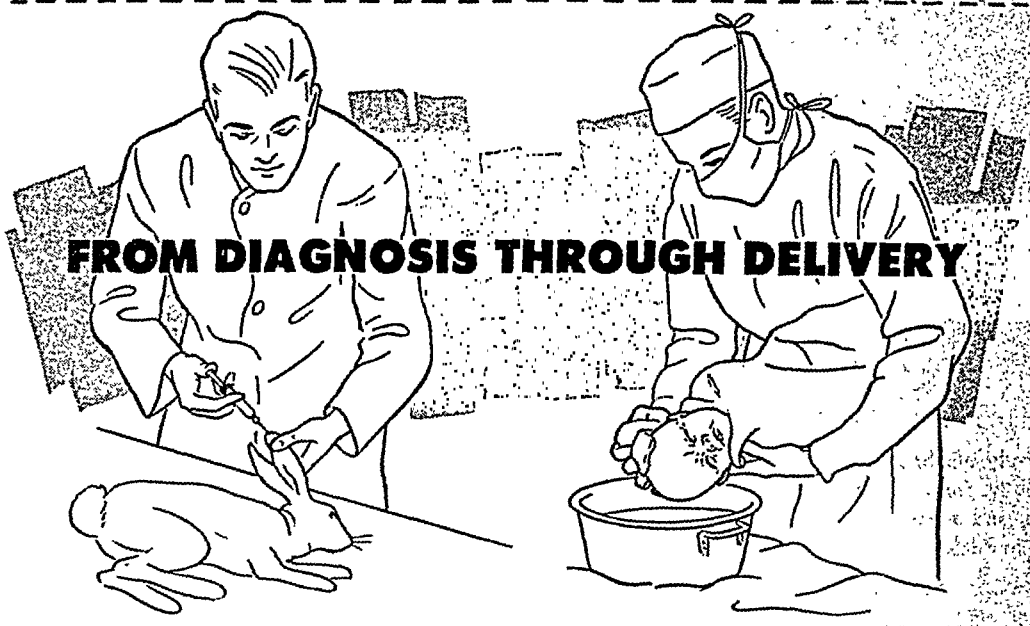
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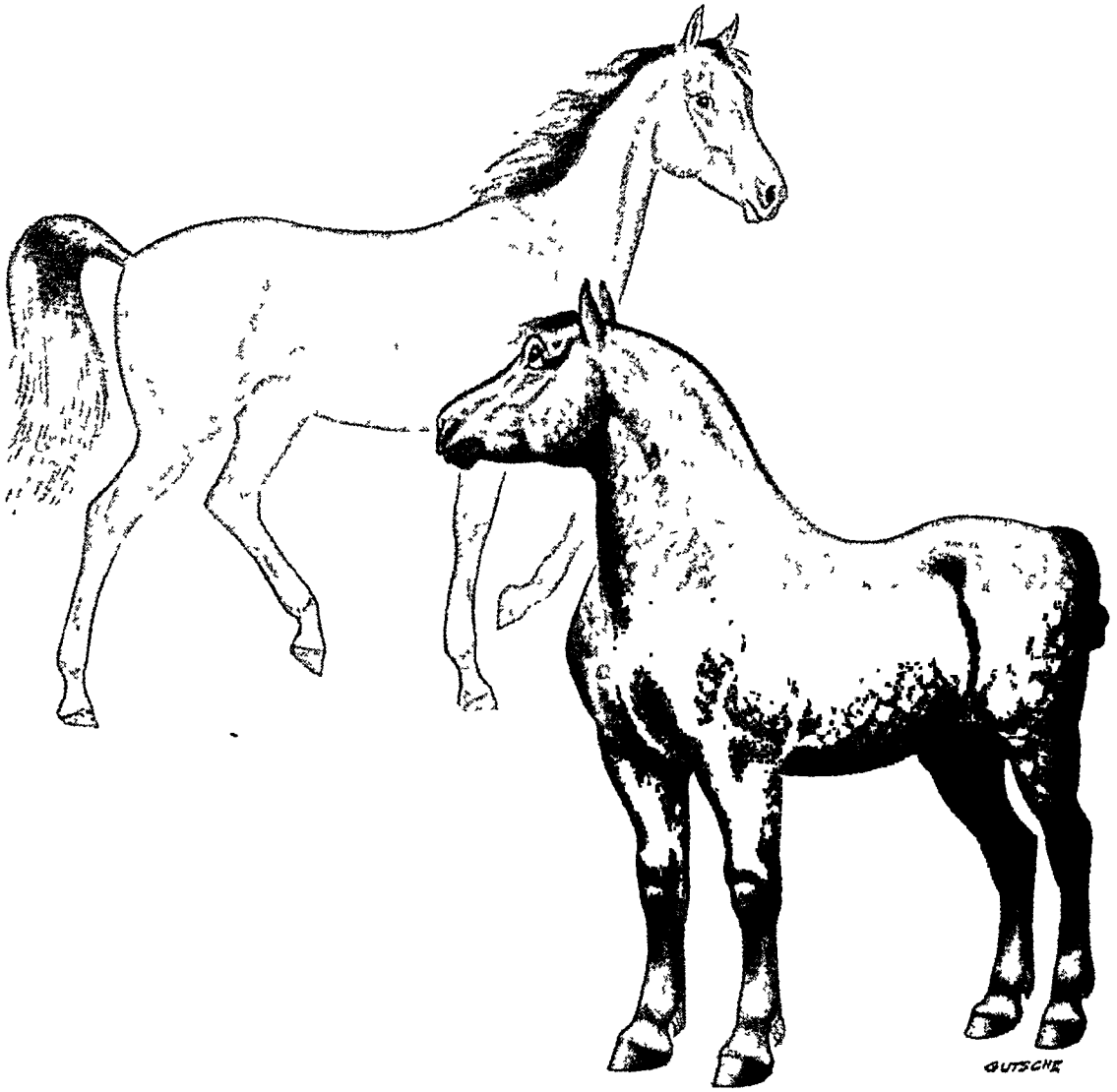
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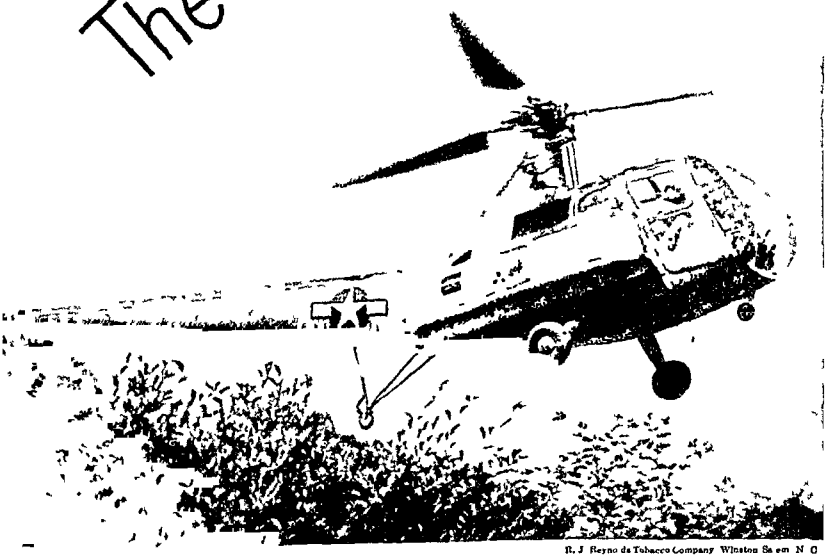
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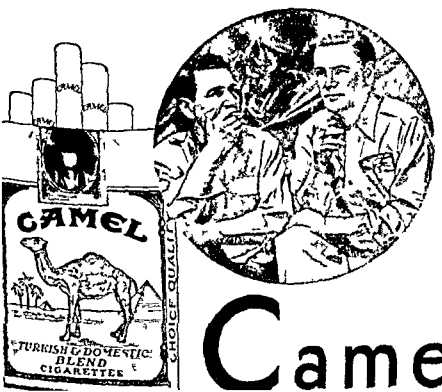
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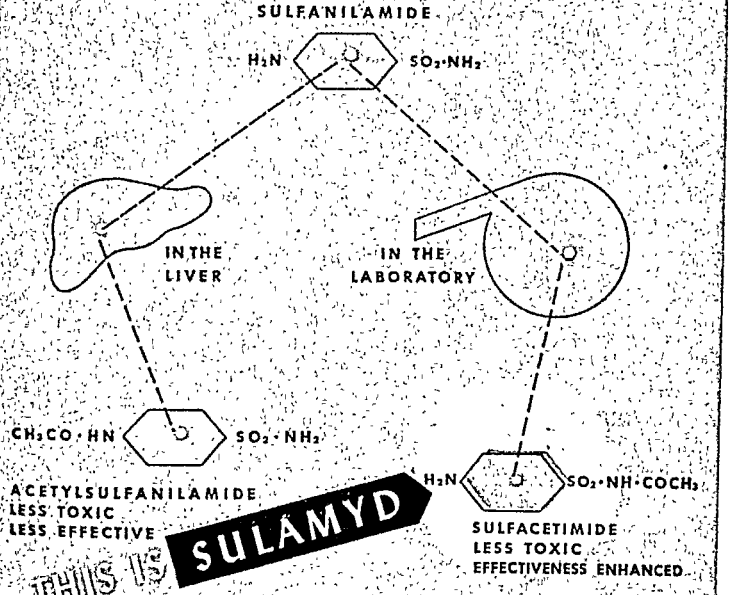
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*Gold, H.; Cattell, M.; Modell, W.; Kwit, N.T.; Kramer, M.L., and Zahm, W.: Clinical Studies on Digitoxin (Digitaline Nativelle) with Further Observations on Its Use in the Single Average Full Dose Method of Digitalization, J. Pharmacol. & Exper. Therap. 82.187 (Oct.) 1944.



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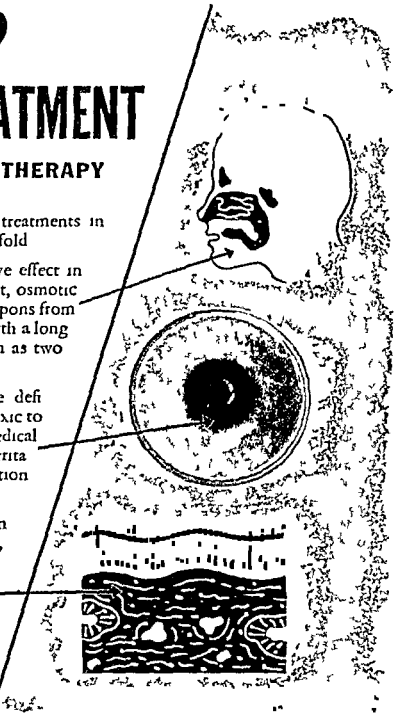
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Metrazol Council Accepted
Powerful, Quick Acting Central Stimulant
ORALLY - for respiratory and circulatory support
BY INJECTION - in the emergency
AMPULES - 1 and 3 cc. (each cc. contains 1½ grains.)
TABLETS - 1½ grains.
ORAL SOLUTION - (1½ grains per cc.)
Metrazol, brand of pentamethylenetetrazol, Trade Mark reg. U. S Pat Off.
BILHUBER-KNOLL CORP. ORANGE, NEW JERSEY

Effective, safe, ***LOCAL*** *chemotherapy in oropharyngeal infections*

HIGH LOCAL CONCENTRATION



HIGH and PROLONGED salivary concentration of sulfathiazole is brought directly to the site of oral and pharyngeal infections following the use of—

White's SULFATHIAZOLE GUM*

Even a single tablet of White's Sulfathiazole Gum chewed for *one-half to one hour* provides a high concentration of locally active sulfathiazole. The medication is brought into immediate and *prolonged* contact with oropharyngeal areas which are not similarly reached by ordinary measures of topical chemotherapy. Moreover, resulting blood levels of the drug, even with maximal dosage, are so low that systemic toxic reactions are virtually obviated.

INDICATIONS: Local treatment of sulfonamide-susceptible infections of oropharyngeal areas:

a. acute tonsillitis and pharyngitis;
b. septic sore throat;
c. infectious gingivitis and stomatitis;
d. Vincent's disease

DOSAGE: One tablet chewed for *one-half to one hour* at intervals of one to four hours depending upon the severity of the condition.

Available in packages of 24 tablets, sanitaped, in slip-sleeve prescription boxes.

*

A product of

WHITE LABORATORIES, INC.

pharmaceutical manufacturers

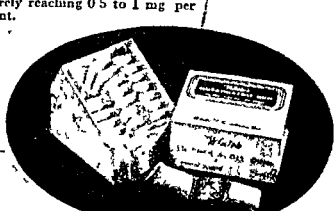
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LOW SYSTEMIC ABSORPTION



High Local Concentration· One [illegible] sulfathiazole (average 10 mg per cent) *that is maintained throughout the chewing period.*

Low (negligible) Systemic Absorption Blood levels of the drug, even when maximal dosage is employed, are almost negligible—rarely reaching 0.5 to 1 mg per cent.



IMPORTANT: Please note that your patient requires your prescription to obtain this product from the pharmacist.

"In Rheumatic Fever—

Salicylates either in the form of aspirin or sodium salicylate, should be given as needed for pain and control of temperature."

—Sherwood, K.K. and Zimmerman, B.: Northwest Med. J., 42:288-292 (Oct.) 1943

Full clinical advantage of the analgesic effect of salicylates with sodium iodide is made possible by prescribing

Salici-Vess

Buffered—for Increased Tolerance and Increased Effectiveness

Ethically promoted—available through your prescription pharmacy in bottles of 30 tablets.

A product of AMES COMPANY, INC. ELKHART, INDIANA

Indicated therapy in Sequelae of

Epidemic Encephalitis

Pills Stramonium (*Davies, Rose*)

2½ grains

Physicians in private practice as well as in neurological clinics have widely prescribed these pills since 1929, and their continued interest in and use of them point to the serviceability of this therapy.

Stramonium Pills (*Davies, Rose*) exhibit in each pill 2½ grains of alkaloidally standardized Stramonium (powdered dried leaf and flowering top of Datura Stramonium, U.S.P.), equivalent to 25 minims (1.54 cc.) of Tincture U.S.P.

As a reassurance of the activity of the finished pills, they, too, are alkaloidally assayed, thus establishing as far as possible uniformity and dependability.

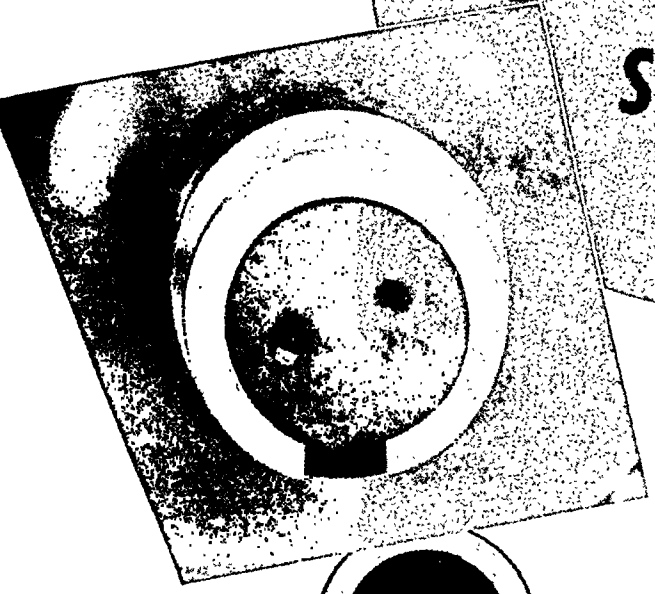
A package for clinical trial and literature mailed free of charge upon request.

Davies, Rose & Company, Limited

Manufacturing Chemists, Boston 18, Massachusetts

St-1

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Visible Proof of Vacuum

Visible proof that vacuum is present in each Vacoliter — proof that the contents are as pure, as sterile, as pyrogen-free as when they left the laboratory—is provided by the indentations in the rubber disc which seals the stopper . . . and corroborated by the audible intake of air as the disc is removed.

Such safeguards, and Baxter's simple, convenient technique, contribute to a trouble-free parenteral program. No other method is used by so many hospitals.

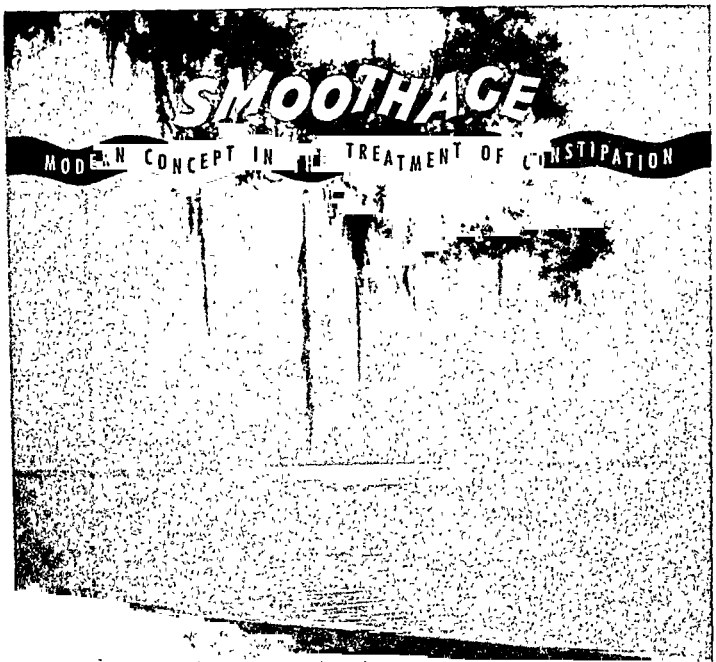
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PIONEERS IN PARENTERAL THERAPY



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Produced and distributed in the Eleven Western States by DON BAXTER, INC., Glendale, Calif.



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Metamucil softens the fecal residue, protects intestinal mucosa and exerts a gentle, stimulating, physiologic peristalsis.

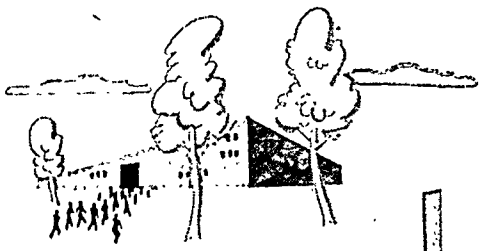
Metamucil is the highly refined, non-irritating extract of a seed of the psyllium group, Plantago ovata (50%), combined with dextrose (50%).

Metamucil mixes readily with liquids—is pleasantly palatable. Supplied in 1-lb., 8-oz., and 4-oz. containers.

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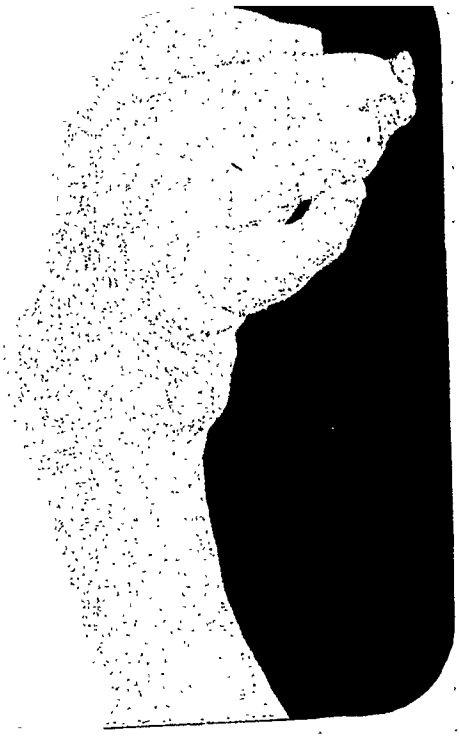
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SEARLE



Research on ERTRON in Arthritis





For over ten years, Ertron in the treatment of arthritis has been studied intensively in leading universities, hospitals, clinics and private practice.

Reports and follow-up surveys have appeared regularly in leading medical journals. This work is still going on, as new methods of attack are evolved.

These studies confirm both the effectiveness of Ertron in arthritis and the non-toxicity of Ertron in therapeutic dosage.

The clinical work has been done on Ertron—the bibliography specifies Ertron—the results apply to Ertron alone—no other product contains electrically activated vaporized ergosterol (Whittier Process).

Complete bibliography and mode of administration will be sent to interested physicians.

ERTRONIZE THE ARTHRITIC

Ertronize Means: Employ Ertron in an adequate daily dosage over a sufficiently long period to produce optimal results. Gradually increase the dosage to that recommended or to the toleration level. Maintain this dosage until maximum improvement occurs.

Capsules—bottles of 50, 100 and 500
Parenteral—packages of six 1 cc. ampules.

ETHICALLY PROMOTED

NUTRITION RESEARCH LABORATORIES • CHICAGO

Ertron is the registered trade mark of Nutrition Research Laboratories.



Views of the right hand of a male, aged 40 years; illustrating a typical *atrophic or rheumatoid arthritis;* duration of disease, 12 years; occupation, filling station attendant, bookkeeper.

This hand illustrates an advanced stage of the disease with marked muscular atrophy and absence of subcutaneous fat The gross appearance is exaggerated by the chronic subnutritional status of the patient The atrophic changes of the musculature with involvement of support ng tendons have resulted in marked deformities and a functionless claw hand The metacarpals as well as the fingers particularly show subluxations with typical ulnar deviations. The nails are markedly thickened and horn-like and falsely suggest psoriatic changes. General symmetrical involvements nearly all joints in body with extensive ankylosis of shoulders, jaws, knees, ankles, wrists and hands. Patient is a complete invalid and takes only soft, ground food due to inability to masticate X-ray shows areas of atrophic destruction and marked decalcification of the osseous structure, subluxations and overriding of the bones.

When Soft Food and Fluids Are Advised -



Modern management peptic ulcer lays stres the liberal intake of food and fluids. The concept has replace older idea of sever restriction.

Horlick's offers a non-irritating, rea gestible liquid foo nutrient quality. fits into the mod diet regimen.

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merits your consid whenever frequent, digested liquid- ment is indicated.

Recommend

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The *Complete* Malted Milk . . . Not Just a Flavoring

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OBTAINABLE AT ALL DRUG STORES



Trifles make perfection, and perfection is no trifle!

Michelangelo

This was the creed of Michelangelo Trifles—menial tasks and lesser elements of precision—always merited his most careful personal attention in his constant aim for perfection

Similarly the pharmaceutical chemist has exercised meticulous care and scientific precision in the complex manufacture of the organic iron preparation, Arsenoferratose Elixir Skillful blending of selected ingredients and diligent attention to numerous so called "trifles" have contributed to produce its superb palatability and perennial efficiency Indeed, in the minds of many physicians, Arsenoferratose Elixir is "the iron tonic of perfection" for *all those anemias known to be benefited by iron therapy*

Supply Arsenoferratose Elixir, Arsenoferratose Elixir with Copper, and Ferratose Elixir, are supplied in bottles of 8 fluid ounces Also economical pint bottles

Dosage 1 to 3 teaspoonfuls, 2 or 3 times daily, according to age and requirements

Literature and samples on request

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HEMATINIC and ALTERATIVE

RARE

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RELIEF FOR MYALGIA

The patient seeks relief for vague muscular pains and aches but often before definite etiology can be determined a dependable analgesic is desired.

By prescribing 'Tabloid' 'Empirin' Compound, assistance for troublesome myalgia is quickly obtained. The synergistic action of the acetylsalicylic acid and the acetophenetidin is enhanced by the caffeine which combats the general depression.

Each product contains acetophenetidin gr. 2½ (0.162 gm.), caffeine gr. ½ (0.032 gm.), acetylsalicylic acid gr. 3½ (0.227 gm.). Also 'Tabloid' 'Empirin' Compound with Codeine Phosphate, gr. ⅛, gr. ¼, and gr. ½.

'Tabloid' and 'Empirin' are Registered Trademarks



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9 & 11 East 41st Street, New York 17, New York

'TABLOID' *Empirin* COMPOUND

Bottles of 100 and 500



PENICILLIN—*The "accidental" discovery that calls for "accident-proof" production*

The contamination of a bacterial culture with *Penicillium notatum*, observed by Fleming was an "accident". The production of penicillin for the medical profession, however, calls for the most rigid control to prevent any "accident" which might impair its potency and purity.

Now that the penicillin you order is a matter of personal choice, the confidence with which you specify any brand is inextricably bound to the program of control safeguarding its production.

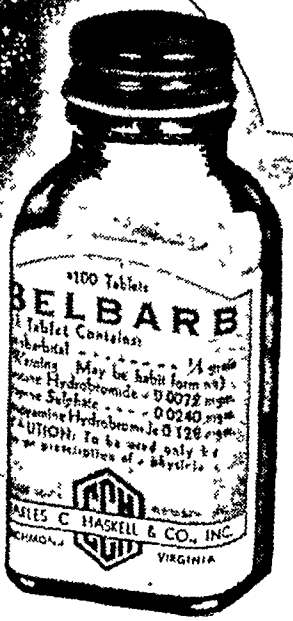
As this photograph of the "seeding" of *Penicillium* culture shows, elaborate precautions are observed at every step at Schenley Laboratories in the production of Penicillin Schenley.



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BELBARB



AN *Excellent* SEDATIVE *and* HYPNOTIC

The potentiation of the central action of phenobarbital by the belladonna alkaloids (Friedberg, Arch. f. exp. P. & P. CLX, 276) renders possible attainment of desired effects with relatively small doses, thus avoiding "hang over" and other unpleasant side-actions. In contrast to galenical preparations of belladonna, such as the tincture, Belbarb *has always the same proportion of the alkaloids.*

Indications: Neuroses, migraine, functional digestive and circulatory disturbances, vomiting of pregnancy, menopausal disturbances, hypertension, etc.

Formula: Each tablet contains ¼ grain phenobarbital and the three chief alkaloids, equivalent approximately to 8 minims of tincture of belladonna.

Belbarb No. 2 has the same alkaloidal content but ½ grain phenobarbital per tablet.

When Bacteremia Supervenes...

Before the advent of penicillin, bacteremia had to be regarded as a grave prognostic sign since distant secondary foci of infection were apt to be established before the organisms could be eradicated from the circulating blood. Penicillin has improved this outlook.* Used early and in adequate dosage, it has proved successful in combating bacteremia caused by susceptible organisms. Penicillin usually produces rapid response, leading to sterilization of the blood stream and to marked improvement or complete disappearance of the original infectious process.

*Larsen, N. P.: Observations with Penicillin, Hawaii M. J. 3:372 (July) 1944.

Stainsby, W. J.; Foss, H L.; and Drumheller, J. F.: Clinical Experiences with Penicillin, Pennsylvania M. J. 48.119 (Nov.) 1944.

Lockwood, S. J.; White, W. L.; and Murphy, F. D.: The Use of Penicillin in Surgical Infections, Ann. Surg. 120·311 (Sept.) 1944.

[illegible] J. F.: Report of a Case of Sta-

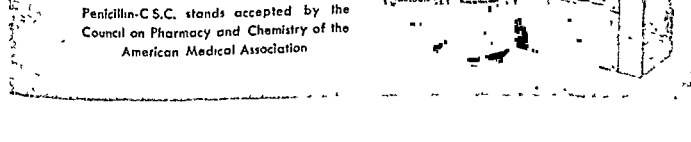
PENICILLIN—C.S.C.

These features bespeak the physician's preference for Penicillin-C.S.C.: It is made under rigid laboratory controls which safeguard its potency, sterility, nontoxicity, and freedom from fever-inducing pyrogens. The state of purification reached in Penicillin-C.S.C., indicated by the small quantity required to present 100,000 Oxford Units, makes untoward reactions comparatively rare, even when massive dosage and prolonged administration are required.

PHARMACEUTICAL DIVISION

COMMERCIAL SOLVENTS Corporation

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Penicillin-C S.C. stands accepted by the Council on Pharmacy and Chemistry of the American Medical Association



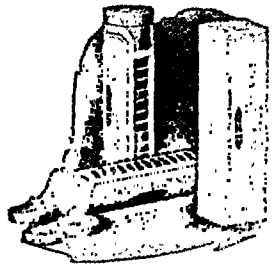
Thantis Season

Winter time is the season of throat affections. Crowded transportation facilities, due to wartime conditions, cause exposure of more people to infection.

Many physicians have found Thantis Lozenges to be effective in relieving throat soreness and irritation, because they are antiseptic and anesthetic for the mucous membranes of the throat and mouth.

Thantis Lozenges contain Merodicein (H. W. & D. Brand of Diiodooxymercuriresorcinsulfonphthalein-sodium), 1/8 grain, and Saligenin (Orthohydroxybenzylalcohol, H. W. & D.), 1 grain. They are effective and convenient; they dissolve slowly, permitting prolonged medication.

Thantis Lozenges are supplied in vials of twelve lozenges each.



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"*suddenly . . . life was worth living*"*

In depressed patients, Benzedrine Sulfate is virtually unique in its ability to banish apathy, subjective weakness, and despondency . . . to restore mental alertness, enthusiasm and the capacity for work . . . to increase the sense of energy . . . and to reawaken the zest for living.



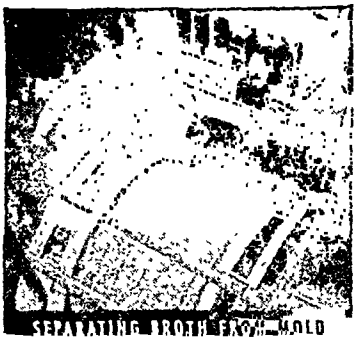
The quotation which heads this page provides, out of the author's own experience, striking testimony to the dramatic value of Benzedrine Sulfate in the relief of simple depression, with its associated symptoms of anhedonia, chronic fatigue and retardation.

*Reiter, P. J., Experience with Benzedrine, Ugeskr. f. laeger, 99:459-460, 1937

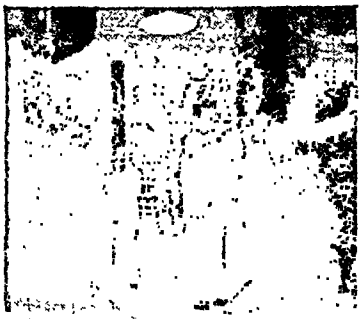
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Racemic amphetamine sulfate S.K.F.

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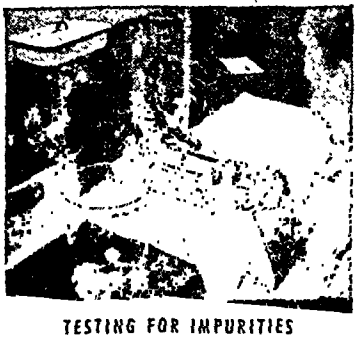
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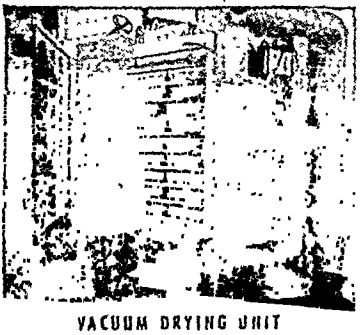
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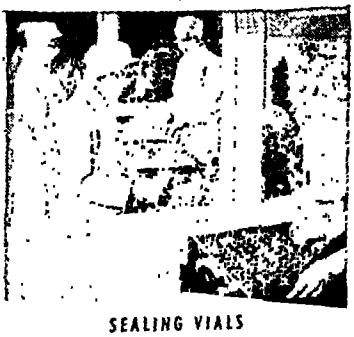
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WORLD WAR II—and the critical need for life-saving penicillin—has changed Cheplin Laboratories from a modest manufacturer, specializing for two decades in parenteral therapeutics, to one of the five largest producers of penicillin in the world. This almost miraculous metamorphosis is not the result of haphazard growth. It is the result of careful planning by far-seeing, aggressive management and a carefully-selected, balanced staff of technicians and scientists.

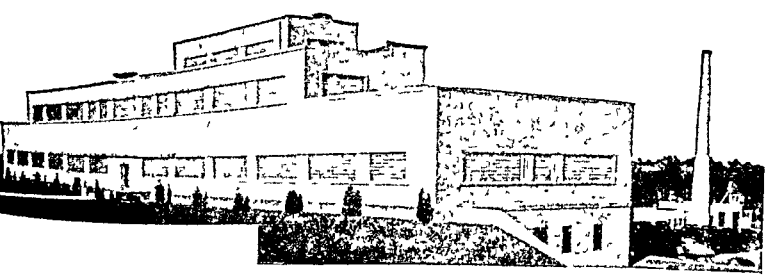
MANUFACTURING LABORATORIES — Cheplin's new, air-conditioned penicillin laboratories represent an investment of $3,000,000. Our facilities are devoted solely to the manufacture of penicillin by the "deep tank method" which gives high yield at low cost.

SCIENTIFIC STAFF AND PERSONNEL—The amazing production record of these laboratories was achieved through the teamwork and ability of our meticulously-selected staff of bacteriologists, pharmacologists, chemists and medical men, and our highly-trained personnel. Research by this modern science-wise group has solved the many problems of large-scale production of penicillin. Today their research is aimed at broadening the uses of penicillin for the medical profession.

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STEAM MASSAGES ○ INHALATION THERAPY

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Popular priced hotels and boarding houses conveniently located near the baths and springs.

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Doctors—Suggest this renowned Spa to your patients and you'll receive their profound thanks when they return—refreshed, relaxed, rehabilitated.

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FOOTWEAR



SHOES AS THERAPEUTIC AGENTS

No doctor can ignore that shoe therapy is a major factor in the treatment of many foot disorders. In some cases, however, when further medical or surgical treatment is required, the shoes must be adjusted to conform to any changes such treatments make in the shape or size of the feet.

Pediforme shoes are prepared through experienced craftsmen to make the necessary adjustments as prescribed by the orthopedic surgeon or physician in these cases.

With purchases restricted it is readily apparent that substantial shoes, capable of reconstruction or easy adjustment, should be prescribed. For all practical purposes, Pediforme footwear may well be considered in shoe therapy.

A SHOE FOR EVERY MEMBER OF THE FAMILY . . . A SHOE FOR EVERY INDIVIDUAL REQUIREMENT.

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SOPRONOL *Inhibits* FUNGOUS INFECTIONS



MONILIA albicans



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MICROSPORUM audouini



TRICHOPHYTON purpureum

. . . As demonstrated by clinical investigation in a leading United States hospital

In tests on a large number of hospital patients, Sopronol was found to exert an *inhibitory* rather than a destructive action on the fungus. The advantages of this method are obvious. Sopronol, taken readily into the fungous organism, prevents its development and spread. Hence the infection is quickly brought to an end, but without the customary skin irritation caused by poisonous by-products resulting from strong fungicides in contact with the mold. The chemical basis of Sopronol is sodium propionate.

ALL SUPERFICIAL MYCOSES (RINGWORM)

Prescribe Sopronol for: Tinea Pedis, Tinea Cruris, Tinea Capitis, Tinea Glabrosa, due to "the dermatophytes"—Trichophyton, Epidermophyton, Microsporum, Monilia (Candida) and pathogenic aspergillae infections. Sopronol is non-irritating, non-keratolytic, non-toxic.

Available in alcoholic solution, powder and water soluble ointment bases



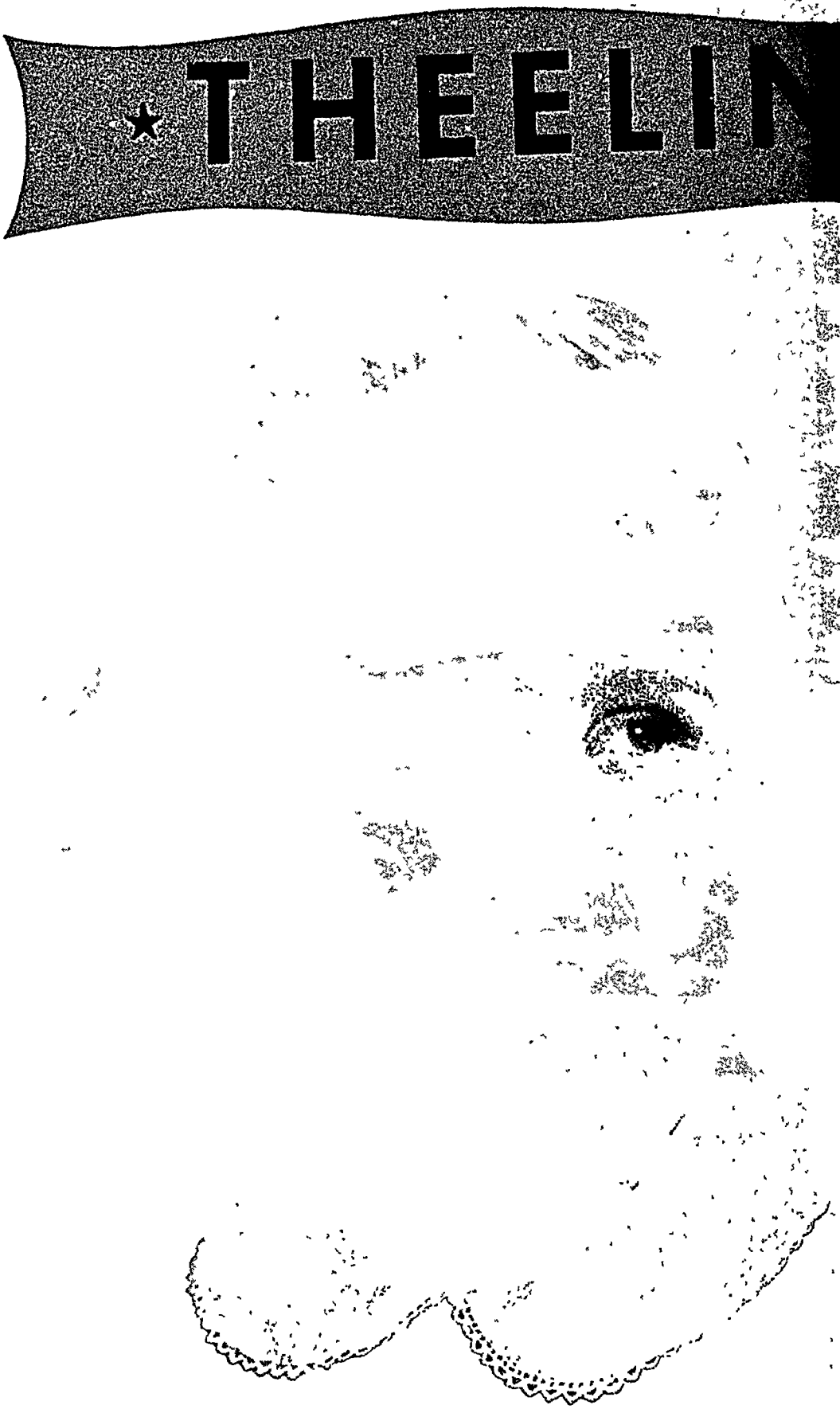
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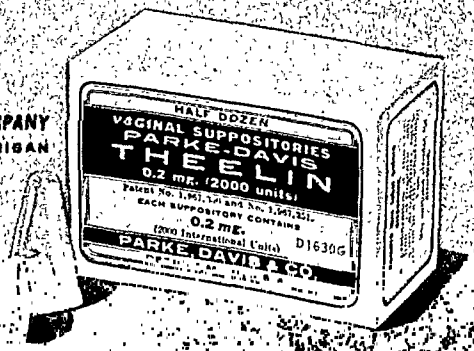
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1. Footman, B. C.; Bierer, R. E.; Jones, E. O.; Inloes Jr, B. H.; Kardash, T.; and Handley, J. M.: Treatment of Gonococcic Vulvovaginitis, J.A.M.A. 127:6 (Jan. 6) 1945.

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*"Bactericidal Efficiency of Iodine Solutions and Organic Mercurial Antiseptics", Amer. Jour. Pharm., 117:5 (Jan.) 1945.

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1. Marriott, W. McKim. "Infant Nutrition", revised by Jeans, Mosby, St. Louis, 3rd Ed., 1941.

2. Jeans, P. C.: "The Feeding of Healthy Infants and Children", J A M A. 120.193, 1942.

*Recommended daily allowances—Committee on Foods and Nutrition, National Research Council

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Serious Infections (staphylococcus, clostridium, hemolytic streptococcus, anaerobic streptococcus, pneumococcus, gonococcus, anthrax, meningococcus) Adults and children	15,000 to 20,000	(a) Intravenous drip: 2000 to 5000 every hr.	40,000 to 120,000 or more	(a) Dissolve ½ of 24 hr. dose in 1 liter (1000 cc.) normal saline; let drip at 30 to 40 drops per minute.
		or (b) Intramuscularly: 10,000 to 20,000 every 3 or 4 hr.	40,000 to 120,000 or more	(b) Concentration: 5000 U. per cc. normal saline.
		or (c) Intramuscular drip	40,000 to 120,000 or more	(c) Total daily dose in 250 cc. normal saline.
Infants	5000 to 10,000	3000 to 10,000 intramuscularly every 3 hr.	20,000 to 40,000 or more	Each dose in 1 or 2 cc. of normal saline.
Chronically infected compound injuries, osteomyelitis, etc. Adults and children	5000 to 10,000	10,000 every 2 hr. or 20,000 every 4 hr. intramuscularly or intravenously. Larger doses may be necessary at times.	40,000 to 120,000 or more	Concentration for intramuscular inj.: 5000 U. per cc. normal saline. For intravenous inj.: 1000 to 5000 U. per cc. Supplement with local treatment.
Gonorrhea	20,000 every 3 hr. intramuscularly for 5 doses		100,000	Results of treatment should be controlled by culture of exudate.
Empyema Adults and children	30,000 to 40,000 once or twice daily into empyema cavity		30,000 to 80,000	Dissolve in 20 to 40 cc. normal saline and inject into empyema cavity after aspiration of pus.
Meningitis Adults and children	10,000 once or twice daily into subarachnoid space or intracisternally		10,000 to 20,000	Concentration: 1000 U. per cc. normal saline.
Bacterial Endocarditis Adults and children	25,000 to 40,000	25,000 to 40,000 every 3 hr. intramuscularly	200,000 to 300,000	Continuous treatment for 3 weeks or longer. In a few cases the intravenous drip is more advantageous.

*Based upon recommendations by Chester S. Keefer, War Production Board Penicillin Leaflet, Apr. 1, 1945, and by Wallace E. Herrell and Roger L. J. Kennedy, *Journal of Pediatrics*, 25 505, Dec, 1944.

● *Write for pocket size copies of this Dosage Table*

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months. They will be painted white with red crosses and green bands—which insures protection under the Geneva Treaty—and be ready for service by June or July.

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The other vessels slated for conversion are the former French liners Columbie, with a capacity of 608 litter and 172 ambulatory patients, and Athos II, which will carry 615 litter and 264 ambulatory cases; the former United States liner Republic, with a capacity of 900 litter and 300 ambulatory patients; and the President Tyler, with a capacity of 650 litter and 158 ambulatory patients.

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*Shapiro, S.; Segard, C. P., and Tabachnick, E. N.: Prevention of Hemorrhagic Anemia After Blood Donation in Normal Adults, New York State J. Med. 45:394, 1945. (Reprints of this article will be sent upon request).



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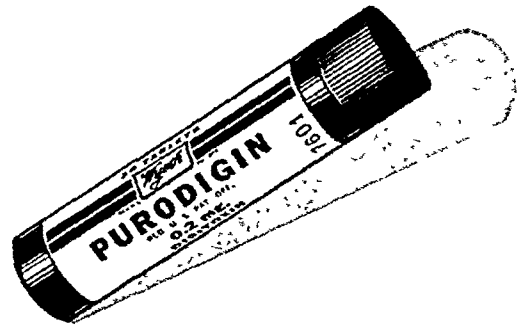
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1. Gold, H., et al.: J. Pharmacol. & Exper. Therap. *69*:177, 1940.
2. Gold, H.: J. Conn. M. Soc. *9*:193 (March) 1945.

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NEW YORK STATE JOURNAL OF MEDICINE

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VOLUME 45 JUNE 1, 1945 NUMBER 11

Editorial

Veterans' Medical Care

Recently, apparently well-documented allegations have been made of poor medical care for veterans.[1] Many of the charges seem to be true. We quote the following as a sample:

"Yes, our disabled veterans are being betrayed by the incompetence, bureaucracy, and callousness of the Veterans Administration, the agency set up over twenty years ago to insure not just good care but the finest medical care in the world for our war veterans.

"We have never stinted the Veterans Administration. We have given it over a quarter of a billion dollars to build a magnificant chain of nearly a hundred great hospitals. Recently Congress appropriated over $105,900,000 just to run these hospitals.

"Yet only one patient in six ever leaves these beautiful buildings labeled as 'cured.'

"Only three out of five complete their hospitalization and win even the label of 'improved.'

"The rest die or are discharged as 'unimproved,' or run away to enter other hospitals or to suffer and die quietly at home!

"Strong statements?" Yes. But they are based on the published figures issued by the Veterans Administration itself. In many of the veterans' hospitals I have visited, the death rates are actually far higher, the 'cure' rates far lower and conditions far, far worse than any cold statistics can ever indicate.

"I have spent nearly half a year visiting more than a dozen of these hospitals, from Minnesota to Massachusetts. Everywhere I have found disgraceful and needless overcrowding.

"I have found doctors so overloaded that they could give the average patient only seven minutes' attention a week. Not seven minutes a day, mind you—seven minutes a week!"

We note[2] that the Subcommittee on Wartime Health and Education of the Committee on Education and Labor of the United States Senate has issued an interim report on the health needs of veterans. This report is worthy of study not only because it affords a good picture of what the probable health needs of the veterans will be, but also because in Item 6 of the summary and conclusions it proposes

"to examine and appraise both the quality of the medical services given in Veterans Administration facilities and the ability of the Administration to discharge the heavy duties which will be placed on it. Special attention will be given to neuropsychiatric services. The investigation will be conducted with the help of recognized authorities in various medical specialties, of veterans' organizations and of professional groups."

Says the *J.A.M.A.* editorially[2]

"Many theories have been offered as to just why medical care of the veterans should reach a low state. The majority opinion seems to tend toward the concept that the nature of the system whereby the medical staff is chosen and whereby its administration is developed and the conditions under which the medical staff serves are the factors chiefly responsible. The charge has been made that the chief administrator of the Veterans Administration has little sympathy with a high quality of medical service. A series of articles by Albert Deutsch in *PM*, following a personal investigation made by him, apparently served to arouse many legislators to demand an investigation. . . . .

"Another article called attention to the low quality of rehabilitation available for men with surgical disabilities. . . . .

"Medical care for veterans would involve some 13,000,000 people, and, if their families are included, as many as 40,000,000. The senate committee has felt that the whole program of educational, employment, and monetary benefits for veterans should be re-examined in the light of the accumulated experience. The subcommittee, of which Senator Claude Pepper is chairman, proposes to examine both the quality of medical service given in Veterans Administration facilities and the ability of the administration to discharge the heavy duties which will be placed on it. The committee points out that criticisms of the quality of service given by the Veterans Administration have been made by organizations and individuals who speak authoritatively. It is emphasized that the personnel classifications and salaries for physicians, nurses, and social workers are not sufficiently high to attract the best practitioners and workers. The hospitals of the Veterans Administration are likely to be isolated geographically and medically. Although the administrator has full authority and adequate funds to avail himself of the very highest quality of consultation and part-time services of leading physicians, the utilization has been minimal.

"During the last few months storm clouds have gathered over the Veterans Administration; the rumblings of thunder point toward a possible stroke of lightning aimed toward medical care specifically in the Veterans Administration. A continuous flow of charges comes from a variety of investigators, commentators, periodicals, and publications whose observations have led them to believe that medical care in the Veterans Administration is on a standard far lower than that prevailing in ordinary practice in the United States. The deteriorated service seems especially poor when contrasted with the high quality of medical care rendered to those in the armed forces."

Now, it seems to us that the responsibility for the poor medical care of the veteran, while directly chargeable to the Veterans Administration, must be shared by all of us. If we have permitted the agency we created to do its work badly, the fault is ours. There has been time since the last war to have investigated, to have sought out the faults and the weaknesses, the incompetence, and the lack of adequate facilities.

That we have not, before this, carried out our obligations as citizens will forever remain to our discredit. Any criticism of the medical care provided by the Veterans Administration must be borne also in part by the medical profession and by the public. The *J.A.M.A.* says:

"Perhaps the time is ripe for a really authoritative, independent investigation of the administration of medical service to veterans, made by a committee responsible directly to the executive office of the President."

We feel that because of the seriousness of the charges being made, the time already lost, and the urgent need for rectification of deplorable conditions, there is no "perhaps" about it.

[1] Maisel, Albert Q., Cosmopolitan Magazine No. *705:* 35 (March) 1945.
[2] J.A.M.A. 127: 854 (March 31) 1945.

The Practical Nurse

Some time ago the Public Relations Committee of the New York Academy of Medicine, with commendable foresight, said, "The practical nurse has become an indis-

pensable agent in the community organization for the care of the sick. . . ."

This observation carries more and more weight as the demands of the armed services, justified or not, subtract ever-increasing numbers of registered nurses from civilian practice. The Committee said further, in part, "Every effort should be made without delay to develop an effective method for the recruitment of women for practical training and for the development of facilities for the training and placement of this auxiliary nursing corps."

The imminent prospect of the passage of the nurse draft bill by Congress without a National Service Act should focus our attention more sharply on this auxiliary nursing corps. We quote from an article by Hilda M. Torrop, President, National Association for Practical Nurse Education:[1]

"In order to avoid misunderstanding, the term 'practical nurse' as used in this article refers to a man or woman who has received a formal course of instruction, usually nine months to a year, in a school of practical nursing that meets the standards approved by state boards of nurse examiners, in states where these workers are licensed, or by the National Association for Practical Nurse Education.

She (or he) is between 18 and 50 years of age, has completed at least eight years of elementary school, is in good health, and will be prepared by classroom work and hospital experience to care for semiacute, convalescent, and chronic patients in hospitals, at home, or with visiting nurse associations. Upon graduation, she is a vocationally prepared worker. In no sense of the word should she be looked upon as comparable to a poorly prepared professional nurse. She stands on a sure foundation, equipped to give necessary nursing care to the largest category of our sick population, the chronic and the long-time convalescent."

Here we have a body of women prepared to care for semiacute, convalescent, and chronic patients either in hospitals or at home.

By the greater use of their services patients can be evacuated more quickly from overburdened hospitals, and home care may be improved. In our aging population this is a matter for some concern. If the difficulty of obtaining domestic help continues, and if the pressure upon district nursing associations, already great, is increased as it is likely to be, we would certainly be shortsighted were we not to encourage effective methods for the recruitment, training, and placement of practical nurses.

"The Joint Committee on Auxiliary Nursing Service of the three national nursing associations, the Working Committee on Practical Nursing of the U.S. Office of Education, and the Public Relations Committee of the New York Academy of Medicine are actively concerned with the definition of practical nurse services, promotion of good schools with sound curricula, licensure of all who nurse for hire, and suitable placement of the graduate group."

Already twelve schools in the State are prepared to train candidates, who must be between the ages of 18 and 50, and elementary school graduates or the equivalent, citizens of the United States or in possession of first papers and in good health. Courses vary from nine months to a year. Graduates are now acceptable as assistants to the public health nurse in visiting nurse associations, and eligible for duty in general, tuberculosis, cancer, mental, orthopedic, and veterans' hospitals.

Physicians of the State would do well to familiarize themselves with the elegibility and training requirements for practical nurses. The hospital expansion program must inevitably be delayed by the war, and home nursing seems to be the answer for many of the semiacutely and chronically ill. Older women have here an opportunity for a career of usefulness and service which does not require a prolonged course of training but which could be of immense benefit to the overworked medical profession of the State and a source of comfort to the semiacutely and chronically ill.

The Womans' Auxiliaries of the various county societies might well assist in the procurement of candidates for training in this work. Classes are conducted at night as well as during the day, and tuition fees are extremely moderate. We urge the physicians to give consideration to this possible solution to some of the urgent problems of the civilian nursing shortage.

[1] "Practical Nursing as a Vocation," Occupations 23: 340 (March) 1945.

Correspondence

Treasury Department
Bureau of Narcotics
New York 7, New York

Office of District Supervisor
District No. 2
State of New York
and
5th Collection District
State of New Jersey

April 9, 1945

To All Members of the Medical Profession in District 2:

In November, 1940, I addressed a letter to you requesting your cooperation in preventing the improper and illegal distribution and use of all types of narcotic drugs. I want to extend my thanks to you for your assistance in the past, and once again to ask your cooperation in the situation which is now confronting us.

The extremely high cost of illicit drugs bought from the underworld and the extreme dilution of such drugs make it very difficult for the criminal addict to satisfy his or her degenerate craving. The result is that such addicts are increasing their efforts to establish a source of supply among doctors and pharmacists, and to thus divert for their own loathsome use the drugs that are so badly needed by our armed forces and by our needful sick. Many of these criminal addicts are able to have the physicians prescribe in excessive amounts, or "raise" the amount placed on the prescription by the physician, or to secure prescriptions from several physicians, and through these means procure sufficient drugs to establish themselves as underworld dealers.

The improper and illegal prescribing of narcotic drugs to individuals merely to satisfy their addiction is a menace to our country and we must all work together to stop it finally and completely. Remember that an order for narcotic drugs written and issued merely for the gratification of drug addiction is not a "prescription" within the meaning of the Federal Narcotic Law and protects neither the physician who issues it nor the druggist who knowingly accepts and fills it. There may continue to be certain unscrupulous physicians who will overlook their responsibility in this matter. I warn you that it may become necessary to limit or completely stop the sale of narcotic drugs to such persons and to advise pharmacists to exercise extreme caution in filling prescriptions signed by such persons. In still other cases we will have to report the facts to the United States Attorney for prosecution in Federal Courts.

Do not write so-called narcotic prescriptions for narcotic drugs for general office use. The pharmacist is not authorized to fill such a "prescription." Narcotic drugs for direct dispensation in the course of professional practice should be obtained by the practitioner upon his official order from a person or firm registered as a manufacturer of or wholesale dealer in narcotic drugs. Do not telephone a "prescription" for a patient to a druggist except in a case of extreme emergency and in such case be sure to furnish a properly written prescription at or before the time of delivery of the narcotic drug called for. The pharmacist may not legally sell or transfer narcotic drugs to a patient without receiving a proper prescription, and if he ignores this requirement, both he and the physician aiding and abetting the transaction may be liable to prosecution for the violation.

Let me remind you again of the methods used by common addicts to secure a prescription or drugs from you, and permit me also to indicate to you how you may circumvent their evil designs.

1. Simulating ailments that may or may not require narcotics. Addicts are peculiarly adept at this.—Thoroughly examine patients, take x-rays, "test meals," and perform other proper scientific tests before prescribing narcotics regularly. Be extremely wary of patients who suggest that a certain narcotic is the only medication that will help them. Maximum use of nonhabit-forming drugs as substitutes for narcotics.

2. Stealing doctor's prescription blanks, writing their own "prescriptions," and forging a doctor's signature. Stealing medical bags.—Do not keep your prescription pad on your desk or in sight of an addict. Do not leave your medical bag containing narcotics on the seat of your car, or in sight of an addict in your office.

3. Presentation of letters from other physicians stating that patient is suffering from certain ailments; stating that they are traveling home or to a hospital and require a certain amount of drugs; showing an application from the U.S. Public Health Service Hospital, Lexington, Kentucky, and requesting narcotics until such time as they have to report to the hospital.—Many of these letters are forgeries and it is incumbent upon the physician to determine for himself whether or not the person has a genuine medical need for narcotics.

In all cases of suspected irregularities, telephone or write the facts to the nearest office of the United States Bureau of Narcotics.

GARLAND H. WILLIAMS, *District Supervisor*

Headquarters Office:
253 Broadway, New York 7, New York. Rector 2-7373, Ext. 142.
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858 Industrial Office Building, 1060 Broad Street, Newark 2, New Jersey. Market 3-5295.

NOTE

The attention of our readers is called to the "Club Talk Bulletins" issued by the Public Relations Bureau. These are valuable to physicians who must give talks to lay groups on medical subjects. The most recent one deals with "Rehabilitation of the Tuberculous," Number 67. A copy will be forwarded on request to the State Society office at 292 Madison Avenue, and a list of previous bulletins will also be attached on request.

SUDDEN AND UNEXPECTED NATURAL DEATH—GENERAL CONSIDERATIONS AND STATISTICS

MILTON HELPERN, M D , and S MILTON RABSON, M D , New York City

(From the Office of the Chief Medical Examiner)

THIS paper is based on a study of 2,030 cases of sudden and unexpected natural death in the Borough of Manhattan from January 1, 1937, to June 30, 1943, necropsy was performed by the Office of the Chief Medical Examiner Perhaps it would be better to emphasize the unexpected character of these deaths occurring in apparently healthy people, rather than their suddenness In many instances such deaths are not immediate or instantaneous, but occur with varying rapidity from a few minutes up to twenty-four hours or more after the onset of illness The term "natural death" implies that death was due entirely to disease and that trauma did not play any role in its causation It is sometimes difficult to draw a sharp line of distinction between natural death and death which may have been remotely initiated by some external factor Thus, cirrhosis of the liver may be a sequel of chronic alcoholism, the former condition coming within the scope of this paper and the latter obviously excluded

In an analysis of sudden deaths in the Borough of Manhattan one should consider the unique age distribution of its population,[1] 75 per cent of whom are over 21 years of age Many of the adults who are employed there do not live in its confines, especially so if they have children Thus, Manhattan has a far greater proportion of adults than any other borough, and this disparity is further enhanced by the fact that most of the visitors to the city, also chiefly adults, spend most or all of their time in this borough

Chief among the many selective factors which determine the performance of a necropsy in sudden or unexpected death, regardless of cause, is the operation of the Medical Examiner's Law in New York City The latter provides for the investigation of all sudden and unusual, as well as of obviously suspicious deaths, a provision which is not found in most statutes governing the office of coroner or medical examiner Only Essex County, New Jersey, and Nassau County, New York, have medical examiner's laws similar to that operative in New York City The Office of the Chief Medical Examiner, New York City, investigates approximately 16,000 deaths each year (about 20 per cent of all deaths) [2] Of these, more than half are due to natural causes

The most important reason for autopsy in a case of sudden or unexpected death is to determine whether violence in any form, criminal accidental, or suicidal, has been a factor Thus there have been deaths seemingly natural when first encountered by a layman or doctor, which were proved violent only by necropsy

Case 1.—For example, the body of a woman in late middle age was found lying on the sidewalk about two hours after midnight It was removed to the nearby police station where it was viewed by a medical examiner There was no external evidence of injury, nor was any fracture of the limbs found The deceased's clothing was clean and in order Only one fact seemed to deserve explanation Despite the cool weather, the body was fully clad except for hat and coat No purse was found, and there was no one available to give a history of the deceased's former condition It seemed at first as if death had been caused by disease, and had a relative appeared at the police station and said that the deceased had suffered from a heart malady, a death certificate might have been issued with some form of cardiac disease as the cause of death Because of the circumstances rather than from the physical findings, however, the body was ordered removed for autopsy, which uncovered severe blunt-force injuries to the heart and lungs, indicating a fall from a height Only a few ribs and no other bones were broken The deceased had either fallen or jumped from the fifth floor, and her body had struck the pavement without any resulting external evidence of injury

Another circumstance influencing the selection of necropsy material is the insurance claim Impending litigation or the prospect of the collection of double indemnity for accidental death prompts relatives to ask for postmortem examination, a procedure to which they undoubtedly would object were there no insurance Sometimes the

TABLE 1.—DISTRIBUTION OF SUDDEN AND UNEXPECTED NATURAL DEATHS ACCORDING TO RACE AND SEX

	I Race Distribution				
	White	Black	Yellow	Red	Totals
Cases	1 702	308	19	1	2 030
Percentage of cases	83 9	15 2	0 9		
Percentage of population	83 5	15 8	0 7		
	II Sex Distribution				
Females	284 (74 °)	102 (26%)	1	0	387 (19 1 °)
Males	1 418 (86 3%)	206 (12 6%)	18 (1 1%)	1	1 643 (80 9 °)

Note the striking correlation between racial incidence and racial composition of population

Read at the Annual Meeting of the Medical Society of the State of New York New York City, May 9 1944

TABLE 2.—SUDDEN AND UNEXPECTED NATURAL DEATHS (2,030 AUTOPSIES)

		Number	Percentage of Group	Percentage of Total 2,030
Heart and Aorta, 912 Cases, 44.9%	Coronary artery disease	617	67.7	30.4
	Syphilitic aortitis	107	11.7	5.3
	Valvular disease	83	9.2	4.1
	Cardiac hypertrophy	35	3.8	1.7
	Spontaneous rupture of aorta	25	2.7	1.2
	Others	45	4.9	2.2
Respiratory, 468 Cases, 23.1%	Lobar pneumonia	176	37.6	8.7
	Bronchitis, bronchopneumonia	133	28.4	6.5
	Pulmonary tuberculosis	68	14.5	3.4
	Pulmonary embolism and infarction	31	6.7	1.6
	Others	60	12.8	2.9
Brain and Meninges, 367 Cases, 17.9%	Cerebral hemorrhage	110	30.4	5.4
	Subarachnoid hemorrhage	93	25.7	4.6
	Cerebellar hemorrhage	11	3.0	0.6
	Pontine hemorrhage	11	3.0	0.6
	Cerebral thrombosis and embolism	27	7.5	1.3
	Meningitis	38	10.6	1.9
	Brain tumor	29	8.0	1.4
	Others	43	11.8	2.1
Digestive and Urogenital	.....	198	..	9.7
Miscellaneous	.....	90	..	4.4

Distribution of sudden and unexpected natural death according to organ systems. Comparison of present series with those of Weyrich[5] and of Lauren.[6]

existence of an insurance policy is concealed or denied lest autopsy disclose anatomic changes prejudicial to the beneficiaries' interests. An example of the latter is the case of an elderly man who collapsed and died at home before the arrival of the family physician. The latter, aware that the deceased had been injured and had sustained fractures in a street car about a half year before, issued a death certificate giving traumatic cerebral hemorrhage as the cause of death. The doctor violated the medical examiner's law in two ways: first, he was not in attendance on the deceased at the time of death and therefore could not issue a certificate; second, he is forbidden to issue a death certificate when death is linked to trauma. The death certificate was rejected by the Health Department when presented by the undertaker, and the case was referred to the Medical Examiner's Office for investigation. The family maintained that death was caused by the accident and admitted that litigation was pending, but attempted to prevent action by the medical examiner. Despite their objections, however, necropsy was performed. There was no evidence of any intracranial injury, and only a few healed rib fractures were found. Death was caused by severe coronary arteriosclerosis. The correct cause of death may discourage unnecessary and unwarranted litigation. Without autopsy there is too much room for speculation by misguided or interested "experts."

Age plays a role in deciding whether autopsy is to be done. Natural death is less frequent in younger persons, thus leading to the suspicion of violent death and the performance of necropsy. In older people, however, in whom sudden death is more frequent and usually occurs under obviously nonsuspicious circumstances, the investigation without autopsy is usually adequate. In addition, objections to postmortem examination are more frequent in such cases, and the medical examiner ordinarily finds it difficult to justify the arbitrary performance of a necropsy. There are cases, however, in which the relatives desire to know the cause of death and the examination is done. Because of these factors only 16 per cent of all cases of natural death come to the autopsy table, as compared with a total autopsy percentage of 25 per cent.[2]

The insurance claim may determine necropsy even in the absence of suspicion of foul play. The autopsy may reveal that death was caused by accidental injury, thus entitling the beneficiary to the accidental-death benefit provisions of the policy. In other cases, when violence was suspected because of the circumstances, death was found to be due to natural causes. There are other more difficult cases in which trauma and natural causes have combined to produce death. When payment on an insurance policy is contested because of the allegation of fraudulent application, the autopsy findings may clarify the point at issue. The presence of a fatal natural disease does not *per se* prove that the deceased was aware of his condition.

When the question of workmen's compensation arises, it is to the interest of both the claimant and the insurance carrier to have the cause of death accurately determined. At the same time, there is an opportunity to evaluate the lesions found at autopsy in their relationship to the alleged occupational accident or injury.

One of the most important factors in determining which cases shall come to postmortem examination is the circumstances under which death

TABLE 3.—SUDDEN AND UNEXPECTED NATURAL DEATHS

Distribution Based on Pathologic Anatomy and Causation	2 030 Autopsies Manhattan January 1937 July 1943	Weyrich 2 668 cases	Lauren 403 cases*
	60 9% M 19 1% F	55 4% M 44 6% F	72% M 28% F
Heart and aorta	44 9%	42%	51%
Respiratory system	23 1%	3%	1%
Brain and meninges	17 9%	9%	15%
Digestive and urogenital	9 7%	13%	9%
Miscellaneous	4 4%	13%	12%

* Includes alcoholism excludes children under 14

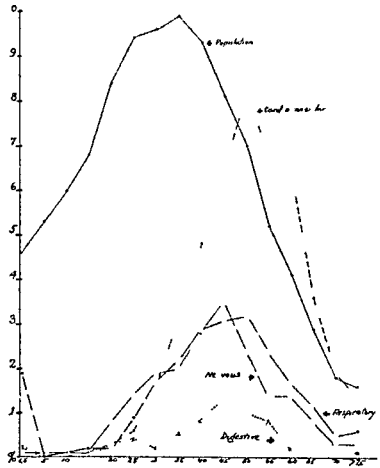


FIG 1 Graphic representation of percentage distribution by half decades of population (Borough of Manhattan, New York City, 1940), and of major categories of sudden and unexpected natural death

occurred The presence of witnesses will tend to confirm natural death and so militate against autopsy, whereas death without witnesses will weigh heavily in its favor

In the careful performance of postmortem examinations the Medical Examiner contributes valuable data for the compilation of accurate vital statistics He does this even though he is not concerned primarily with this problem, as much as he is with the medical detection of violence as a cause of death Of the large number of deaths occurring outside of hospitals, only those under the jurisdiction of the Medical Examiner come to autopsy

Finally, the Medical Examiner functions, at times, as a public health officer The early fatalities in epidemic disease may escape recognition except for his investigation of sudden or unexpected natural death Such was the case in the Fall of 1933, when the Medical Examiner's Office detected the first cases of a fatal outbreak of estivo-autumnal malaria in drug addicts [3] Calling attention to the existence of the disease and the mode of transmission, the Office was responsible for the recognition and treatment of subsequent cases

In general, the economically less fortunate are better represented in the material of the Medical Examiner's Office, probably because those in better circumstances are more likely to have had medical attention when ill and when dying

The anthropologic composition of the material here presented has many interesting aspects One is struck by the paucity of women Of the 2 030 cases reviewed, only 19 per cent were women, although according to the 1940 census[1] 51 per cent of the inhabitants of Manhattan Island are female Even if every one of the 500 000 visitors to New York City were a male, confined his visit to Manhattan, and were included in the population so that the percentage of women sank to 41 per cent, a considerable discrepancy would remain between that value and 19 per cent

When a racial analysis is made (Table 1), it is found that each race contributes to the reservoir of sudden natural death in almost exact proportion to its share in the population Whites make up 83 5 per cent of Manhattan's inhabitants and furnish 84 2 per cent of the material studied in this paper, Negroes, who comprise 15 8 per cent, yield 15 2 per cent, and Asiatics, 0 7 and 0 6 per cent, respectively Negresses, however, who are outnumbered by white women in the ratio of almost 5 to 1, make up more than 26 per cent of all female cases, or almost twice the expected proportion This would suggest that among Negro women the signs of disease are less apt to be heeded and medical attention is less often sought, so that death takes place more often without a physician in attendance

In general, the lesions responsible for sudden and unexpected natural death fall into three categories [4] First, the largest group is made up of natural disease processes which are of slow or insidious development, damaging a vital organ without the production of apparent symptoms, finally, there results a sudden cessation of function The second group comprises sudden and unexpected rupture of blood vessels with the occurrence of fatal hemorrhage The third group includes latent infectious disease Of the three, vascular rupture with hemorrhage is the easiest for the pathologist to evaluate as a necessarily immediate cause of death Infection is perhaps less obvious whereas chronic degenera

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disease is next in frequency (9.2 per cent, 4.1 per cent), then cardiac hypertrophy unassociated with valvular defects and chiefly hypertensive in origin (3.8 per cent, 1.7 per cent), and spontaneous rupture of the aorta (2.7 per cent, 1.2 per cent). Last, there is a miscellaneous group, including congenital heart disease, which totals 4.9 per cent and 2.2 per cent, respectively.

Lobar pneumonia leads in the respiratory group, and is next to coronary artery disease in frequency, comprising 8.7 per cent of the total of all sudden deaths in which autopsy was done. Next in frequency come bronchitis and bronchopneumonia (6.5 per cent), pulmonary tuberculosis (3.4 per cent), and pulmonary embolism and infarction (1.6 per cent).

Among the deaths from diseases of brain and meninges, spontaneous cerebral hemorrhage is most frequent, comprising a third of this category and 5.4 per cent of the entire series of 2,030 cases. Subarachnoid hemorrhage has 4.6 per cent, cerebellar hemorrhage and pontine hemorrhage, 0.6 per cent each, cerebral thrombosis and embolism, 1.3 per cent, suppurative meningitis, 1.9 per cent, and brain tumors, 1.4 per cent.

When a half-decade distribution of disease by organ systems is made (Table 4, Fig. 1), the greatest incidence of sudden and unexpected natural death is found to occur between 45 and 54 years of age. This period is ten to fifteen years later than the percentage peak of population (35–39 years).

Summary

An analysis is made of 2,030 sudden and unexpected natural deaths in the Borough of Manhattan, in which necropsy was done by the Office of the Chief Medical Examiner, and classified according to organ systems on the basis of pathologic anatomy and causation.

Coronary artery disease caused 30 per cent of the deaths; lobar pneumonia, 8.7 per cent; syphilitic aortitis, 5.3 per cent; valvular disease, 4.1 per cent; cerebral hemorrhage, 5.4 per cent; subarachnoid hemorrhage, 4.6 per cent.

Sudden and unexpected natural death occurred four times more frequently among men than among women. Racial incidence was in proportion to population.

Note.—Separate studies devoted to coronary artery disease and to spontaneous subarachnoid hemorrhage are in preparation.

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NAVY NURSE CORPS APPLICATIONS

Registered nurses seeking to become officers in the Nurse Corps, United States Naval Reserve, may now make application through the Office of Naval Officer Procurement at 33 Pine Street, New York.

All inquiries in the past have had to be directed to the Surgeon General in the Navy's Bureau of Medicine and Surgery in Washington.

The aim [illegible] which [illegible] Under [illegible] Navy [illegible] physical [illegible] Other [illegible] office. [illegible] local [illegible] In the [illegible] work. This procurement program carries a 1-plus priority, with a quota of 4,000 additional Navy nurses by June 30 having been set.

Application forms are now available at 33 Pine Street. Nurses are interviewed there, physical examinations are given, and the various necessary documents collected for forwarding to Washington. Nurses in the city are asked to come to the Pine Street office; those out of town are asked to write.

Qualifications include the following: registered nurse, graduate of an accredited school of nursing; high school graduate; native-born or naturalized citizen of the United States for at least ten years; [illegible] r divorced, pre- [illegible] member of a [illegible] the American [illegible] dified by stan-

PHARMACEUTIC TREATMENT OF RINGWORM OF THE TOES

HERMAN GOODMAN, B.S., M.D., New York City

FOR reasons neither space nor inclination permit reciting, some variant of an ointment of salicylic and benzoic acids has been held of value in the treatment and relief of all symptoms of infection of the toe spaces. Let it be said now for all time—no one medicament, no one approach, no one prescription is suitable for *all* persons with this affliction.

A hasty review of the clinical findings is convincing. The reaction of the skin of the toe spaces to the presence of the fungus may be: immediate with vesicles and bullae, that is, with small and large water blisters; or fissures and cracks; or thickening, infiltration, and horn formation simulating callus.

The physician presented with the problem of treatment of ringworm must decide the phase of reactivity of the skin. If he is convinced the patient is in the phase of immediate reaction to insult by invasion of the fungi (this is not related to the period or chronicity of the case), he selects a remedy in the pharmaceutic group of solutions or liquors. On the contrary, if the physician is convinced the patient with infestation of fungi of the skin of the toe spaces is in the fissure phase, the treatment with pharmaceuticals must be designed for penetration. Last, if the physician regards the skin before him as ringworm with keratinization or callus formation, treatment with pharmaceuticals requires the application of keratolytic agents and antiseptics.

In easy review, then: treatment of ringworm of the skin of the toes depends upon the exact location of the offending organism and the reaction of the host. The first requisite is that the medicament does not add to the insult. The next consideration is that the medicament reach the fungi. The third thought is that the medicament be in sufficient concentration to destroy the fungi when it reaches them.

Phase One.—This phase consists of immediate reaction to insult with small and large blisters. Suggested formulas for presentation to prescribing physicians are:

Sodium thiosulfate	50
Water, enough to make	100

Dissolve. Filter. Sig. Apply to the feet after washing and drying.

Potassium permanganate	4
Water, enough to make	100

Dissolve. Sig. A tablespoonful into foot bath.

Iodine	0.6
Potassium iodide	1.0
Water, enough to make	100.0

Dissolve. Sig. Apply to affected parts night and morning.

Phase Two.—This phase is the subsiding reaction. Suggested formulas for presentation to prescribing physicians are:

Tincture of iodine	6
Camphor	10
Alcohol, enough to make	100

Dissolve the camphor in the alcohol and add the tincture. Sig. Apply to affected parts night and morning after washing and drying carefully.

Salicylic acid	6
Alcohol, enough to make	100

Dissolve. Sig. Apply to affected parts night and morning.

Chlorthymol	0.6
Isopropyl alcohol, enough to make	100.0

Dissolve. Sig. Apply to affected parts night and morning.

Phase Three.—Phase three is the infiltrating reaction of hyperkeratinization or pseudo-callus formation. Suggested formulas for presentation to prescribing physicians are:

Salicylic acid	5
Benzoic acid	6
Soft paraffin	32
Cocoanut oil, enough to make	100

Powder the acids and incorporate with the soft paraffin. Mix this with the cocoanut oil to make 100 parts. (This is the original Whitfield formula.) Sig. Apply after washing and drying the affected parts. Cover with clean white socks for walking. At night, wash, remove the fringes of skin and softened callus. Follow by application of:

Chrysarobin	5
Chloroform, enough to make	100

Physical agents or modalities such as x-ray may be required to return the affected skin to normal.

18 East 89th Street
New York City

THE INTERPRETATION OF VISUAL FIELDS IN NEUROTIC PATIENTS

JOHN F GIPNER, M D , Rochester, New York

"IT IS a peculiarity of perimetry that its outward technic is so simple as apparently to make no demand, but to be feasible for the least experienced assistant of a clinic, and yet of all ophthalmic examinations it is perhaps the one which in reality requires the most experience and detachment"—Roenne *

A diagnosis of functional nervous disorder made from the ophthalmologic findings is not difficult if, on examination of the field of vision, the characteristic tubular field or, more rarely, concentric contraction or reversal of color fields, or interlacing of their boundaries, are found in patients with eyes which are normal, externally and ophthalmoscopically When, however, the field defects found correspond, either accurately or only roughly, to the defects characteristic of definite disease syndromes, the task is more difficult, and only repeated careful examinations combined with suggestion therapy will disclose the true nature of the case

Since perimetry, like visual acuity testing, is a subjective examination, errors in field-charting may result from the poor or faulty cooperation of the patient or from ideas transferred from the examiner to the patient through suggestion Once the examiner has obtained a true chart of the patient's field defect, the diagnosis is usually easily made, as the various field defects for retinal and optic nerve pathway lesions are fully recorded in textbooks and special articles The diagnosis of the patient's nervous and emotional status in evaluating the perimetric charting is always more difficult and little has been written on the subject

Five types of situations encountered in the perimetric examination of neurotic patients will be mentioned and illustrated with case histories

A neurotic person with negative fundal examination may present a field defect which simulates the field defect of an organic lesion involving the optic pathway such as retrobulbar neuritis, chiasmal lesion, lesion of the optic tract, internal capsule, optic radiation, or occipital cortex Such a problem was presented by the patient in the following case report

Case Reports

Case 1 —Miss M T , aged 15, who lives in a small town some distance from Rochester, was struck in the right eye while playing basketball, with force sufficient to knock her unconscious for a few minutes She reported for examination the next day complaining of complete amaurosis in the right eye

The right eyelids were ecchymotic There was no disturbance of the ocular movements A mild hyphemia was present in the right eye but the bleeding point in the iris was not seen The tension was normal The pupils were equal and reacted rather sluggishly to light Both fundi were entirely negative

She would not admit of light perception in the right eye except for an occasional "glimmer" The visual acuity of the left eye was 20/20 and the visual field was negative to a rough test A diagnosis of hysterical amaurosis of the right eye was made, atropine ointment was instilled in the conjunctival sac, and the eye was securely padded She was told not to remove the pad and to return in three days When she returned the hyphemia was gone but a subconjunctival hemorrhage was present under the nasal ocular conjunctiva of the right eye Central acuity was 20/20 — 4 but there was marked contraction of the right nasal field, while the left field was negative

A week later visual acuity was 20/20 O U Perimetric fields taken at this time suggested a chiasmal lesion (Fig 1) The right field showed marked concentric contraction, nasal hemianopsia, and enlargement of the blind spot The left field showed a temporal hemianopsia with the line which demarcated the amaurotic from the seeing portion of the field passing through the blind spot This certainly was not the finding of a true chiasmal field defect, where the line of demarcation passes through the macular field in the midline, but disregarding this discrepancy, a left homonymous hemianopic defect was present with an enlarged blind spot on the right side with negative fundi, findings which are frequently seen in chiasmal lesions

At the end of another week central visual acuity was still normal but typical hysterical tubular fields of vision were found for both eyes, with concentric contraction within the 10-degree meridians and present when tested on the perimeter, the campimeter, and the tangent screen at various distances With positive proof that we were dealing with a hysterical manifestation, the condition was explained to the patient, and after several minutes of reassurance and positive suggestion, the patient's visual fields were widened to almost normal dimensions She returned to school and had no recurrence of the trouble

A fundal lesion in a neurotic patient may be interpreted wrongly because an improper visual-field defect has been charted This usually results from unintentional suggestion by the perimetrist, especially when the perimetrist is a well-informed ophthalmologist The following case report illustrates the fact that a technician in the

Read at the Annual Meeting of the Medical Society of the State of New York, New York City, May 10, 1944

* H M Traquair quotes in An Introduction to Clinical Perimetry "

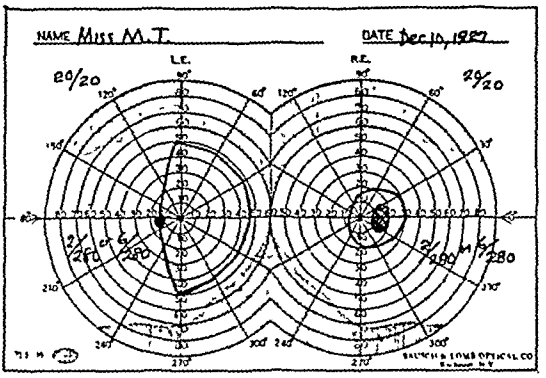


FIG. 1

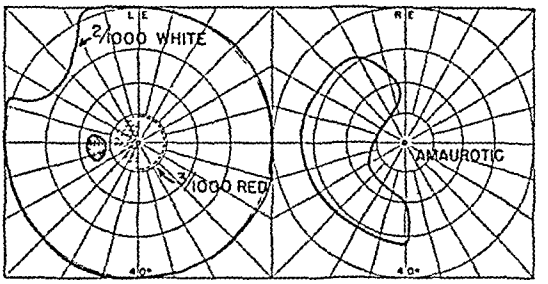


FIG. 2

ophthalmologist's office can also produce erroneous field defects in suggestible patients.

Case 2.—Miss N. E. B., aged 55, was referred to the Strong Memorial Hospital by an ophthalmologist in a neighboring city with a diagnosis of chiasmal lesion, pallor of the nasal half of the right disk, and bitemporal hemianopsia (Fig. 2), definite on the right but easily overlooked on the left, where he found a small superior temporal notch and temporal hemichromatopsia for a red $^{3}/_{1,000}$ object. This field was charted by a technician but was checked by the ophthalmologist. The chief complaint was poor vision in the right eye.

About two years previously while at work she discovered that she could see only one half of the person sitting opposite her, probably due to ophthalmic migraine. Since that time there had been a steady decrease in the visual acuity of the right eye. Throughout her life, she had suffered periodic attacks of migraine which had disappeared about one year ago along with the loss of vision in the right eye. She had received muscle exercises and had worn base-out prisms for years.

V. O. D. −.75 C.Ax. 180° = 8/50−3, V. O. S. −2.00 C.Ax. 170° = 20/25+. Intraocular pressure (Schiötz) 20 mm. each eye.

Our field studies showed (Fig. 3) concentric contraction with greater temporal field loss for the right eye and an essentially normal field for form and colors in the left eye. No suggestion of hemichromatopsia could be elicited. Neurologic examination was negative; x-rays of skull were normal and a diagnosis of right optic atrophy secondary to optic neuritis was made. The cause of the optic neuritis was obscure.

The neurotic patient may present a fundal lesion which could be interpreted as due to disease but which in reality is a congenital anomaly or a physiologic change. A false field may result from suggestion by the perimetrist who considers the lesion to be of pathologic origin. The most common anomaly thus falsely interpreted is the structurally full optic nerve head. Others are the large physiologic cup and senile atrophy of the optic nerve. The following case report is illustrative of these anomalies.

Case 3.—Mrs. E. F., aged 26 years, had always been very nervous and neurotic and subject to migraine since childhood. Her eyes had constantly given her trouble and correction of a moderate compound hyperopic astigmatism by glasses had given no relief. She consulted us stating that her vision seemed blurred and that she had experienced difficulty in stepping down.

The external ocular examination was essentially negative. The muscle balance was normal. Her glasses made a satisfactory correction of her refractive error. The media of both eyes were negative. There was no evidence of intraocular inflammation in either eye in the form of precipitates on the posterior corneal surfaces or vitreous opacities. The upper margin of the right disk was structurally full and protruded slightly forward. The appearance of the left disk was as shown in Fig. 4. There was a peculiar, swollen, baggy mass at the upper edge of the disk, which protruded forward about one-half diopter and hid the upper fifth of the disk. The superior, temporal vessels passed over the swelling, the superior nasal vessels passed through it. The surface of the swelling was grayish white and had every appearance of being composed of medullated nerve fibers.

The condition was considered a bilateral, structural fullness of the upper disk margins, the left being combined with medullation of the nerve fibers. However, upon learning that the condition was not reported in the notes of the ophthalmologists who had previously examined her, the possibility of its being a healed cystic retinitis juxtapapillaris was considered and perimetric fields were made. Although there were no signs of inflammation in the eye, the history of difficulty in stepping down seemed to support this latter view. The patient was visibly disturbed and nervous over the interest displayed in her and promptly gave us the field defect illustrated in Fig. 5. This defect was found not only on the perimeter but also on the stereocampimeter. She left the office weeping.

A few days later she returned very much worried about the condition of her eyes. The fundi remained the same. In checking the visual fields she produced defects continuous with the blind spot in many directions, never twice the same and as often

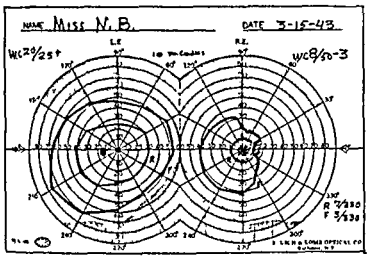


FIG. 3



FIG. 4

above as below. Sufficient time was taken to carefully reassure the patient that nothing was wrong with her eyes and she was asked to return in two weeks At this examination the fields were found to be negative.

Neurotic patients with complaints referable to the eyes may develop real organic lesions with similar or the same complaints. The finding of a real field defect may be the only means of ruling out a diagnosis of functional disorder. In this group are found cases of glaucoma which develop in neurotics, and cases of retinal detachment, especially when the detachment is hidden by hemorrhage into the vitreous. Minimal vascular accidents of the internal capsule involving only the visual fibers with resultant homonymous hemianopsia may be seen in patients who have had migraine for life, with recurring attacks of transient hemianopsia. The true field defect in these cases can be reproduced repeatedly and is constant in dimension and nature.

The reverse malingerer has a definite field defect due to organic disease but conceals its presence and also hides other symptoms of the disease syndrome from the examiner. The psychologic basis for such simulation of normalcy may be incomprehensible to the examiner at the time of the examination. Because of the tragic consequences which result when such patients are not recognized, ophthalmologists must be on guard to discover them and force them to cooperate in their subjective ophthalmic examinations. In the following case the examiner permitted himself to misdiagnose reverse malingering as stupidity or mental retardation.

Case 4.—Miss M. E. Y., aged 17 years, was brought in apparently against her will for an examination of her eyes by her mother, who had noticed a slight ptosis of the left upper lid A satisfactory history could not be obtained because the girl was uncommunicative herself and did not permit her mother to speak for her. She specifically denied headaches or deep pain in the region of the glabella. Except for the slight ptosis the external examination was negative V. O. D. 20/65, V. O. S. 20/65, O. D. +.50 C.Ax 90° = 20/40−, O. S +.50 C.Ax. 90° = 20/40−. Muscle balance orthophoria. Intraocular pressure (Schiötz) O. D. 18 mm., O. S 17 mm. The pupils were equal, reflexes normal, and fundi negative. Because of the negative fundi and reduced acuity unimproved by glasses, a chiasmal lesion was suspected and fields were taken. The patient was exasperatingly uncooperative and roughly full-form and color fields were recorded, although the examiner was not at all sure of his findings. A diagnosis of mental retardation with congenital amblyopia was made.

Three months later another ophthalmologist easily diagnosed a chiasmal lesion on the basis of a complete bitemporal hemianopsia and beginning optic nerve pallor. A malignant neoplasm of the pituitary caused her death following an attempt at surgical removal. An effort to discover the motive for this patient's desire to conceal symptoms and signs of disease from the mother, and hence from the medical examiner, was made by questioning friends of the family.

It was learned that the girl had always distrusted her mother but was very fond of her father; that she was a very intelligent girl who had a scholarship for a college which she was anxious to attend in the fall; that she admitted of headaches only to her grandmother, who supplied her with headache medicine on the promise not to tell her parents, that she was a devout Catholic who had recently attended a novitiate in which she had vowed to stand pain and suffering without complaint.

Conclusions

1. Perimetric fields of patients with functional disorders which simulate field defects found in organic disease often are inaccurate in

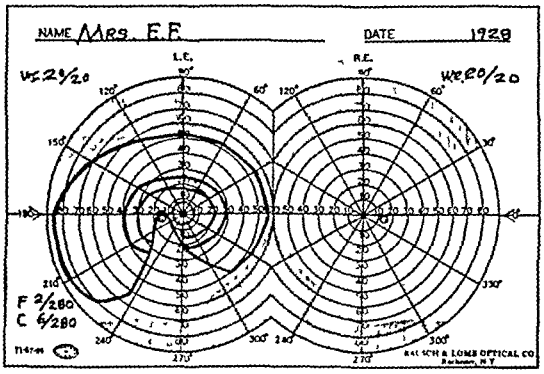


FIG. 5

some details. They tend to change irregularly and disappear with the cure of the patient.

2. The perimetrist must carefully avoid suggestion when charting the field of vision in neurotic patients, so as not to transfer his preconceived ideas of the possible field to the suggestible patient.

3. The examiner must keep an open mind in examining neurotic patients so as not to miss perimetric signs of organic disease.

4. Ophthalmologists must be alert to discover patients with organic disease field defects who hide them from the examiner under a feigned normalcy.

Discussion

Dr. Walter F. Duggan, *Utica, New York*—Dr. Gipner has described 4 cases in which perimetry showed unusual field defects. In each case the patient showed symptoms which are classified as neurotic. Briefly, I would summarize the cases as follows:

Case 1 had a contusion of the globe and probably a concussion of the brain. The injured eye was first amaurotic. Later she showed a left hemianopsia and still later the tubular fields of hysteria in both eyes.

Case 2 had suffered from migraine. She also had a right optic atrophy due to an old retrobulbar neuritis.

Case 3 had suffered from migraine and "nervousness." She gave varying field defects.

Case 4 had a brain tumor. She was uncommunicative and uncooperative. There was conflict at home, and the picture was complicated by what might be called excessive religious fervor.

To me, these cases are interesting because (1) all of the patients were females and (2) every case had an organic condition (injury, migraine, optic atrophy, or brain tumor). Therefore, these cases must be viewed as cases of psychosomatic disease rather than as purely neurotic. Hence, neuropsychiatric problems are involved.

Case 1 brings up the question of the relation of head trauma to physical and mental changes. A blow sufficient to cause unconsciousness must have caused a cerebral concussion. With such a blow, there is the possibility of chiasmal damage through rupture of nutrient blood vessels. Carl Rand (*Arch. Surg.* 32:945 (June) 1936) described a case of "hysterical" contraction of the left field following a fracture of the skull behind the left orbit. However, the patient had a left optic atrophy. There was also mental deterioration. Rand also mentions that subdural or subarachnoid hemorrhages may pass forward to surround the optic nerve and cause blindness. He also described a complete bilateral amaurosis following a blow on the head in which vision returned to normal within twenty-four hours.

H. Van Wagenen operated on 2 patients (quoted in E. Campbell and E. White, *New York State J. Med.* 38:841 (June 1) 1938) with bitemporal hemianopsia following a head injury. He evacuated hematomas from within the sella turcica. Head injuries can cause a fracture of the optic canal leading to total blindness due to optic atrophy. Less severe injuries can undoubtedly cause transitory amaurosis. The late subconjunctival hemorrhage in Case 1 may have resulted from a small fracture at the apex of the orbit.

J. Malone (*J.A.M.A.* 119:861 (July 11) 1942) states that the postconcussional syndrome of headache, dizziness, and emotional disturbances (singly or together) is due to vascular pathophysiologic changes, and he quotes Zacks, Glaser, and Courville to support this view. In Case 1 the emotional disturbances apparently predominated.

The occurrence of a retrobulbar neuritis in a patient with migraine might be expected because of the vascular nature of both diseases.

B. Cushman (*J.A.M.A.* 101:837 (Sept. 9) 1933) reported 10 cases of periodic headache in which there was either a general contraction of the red fields or a superior or inferior temporal contraction of the fields for red or for red and white. Nine of her patients were women. The headaches and field changes were attributed to swelling of the pituitary. She said ". . . the added demands on the pituitary gland during . . . adolescence, pregnancy, and menopause cause temporary hyperemia and enlargement of it, with a consequent compressure of the gland within its closely fitting capsule and sella turcica."

In T. D. Allen's case of hysteria (*J.A.M.A.* 110:38 (Jan. 1) 1938), there had been periodic headaches for eight months in a 14-year-old girl. The fields were slightly contracted. Mental changes associated with the onset of puberty were considered to be the cause of the "hysterical" field changes. In this patient, swelling of the pituitary may have been the cause, in which instance we have an organic cause of the field contraction.

Rosenthal and Seitz (*Amer. J. Ophth.* 23:545 (May) 1940) reported that quantities of amphetamine sulfate insufficient to change the blood pressure altered the angioscotomas. Is it not possible that temporary flooding of the bloodstream with epinephrine, pituitrin, or other endogenous substances could, by a similar mechanism, account for transitory scotomas or field defects in so-called neurotic patients?

J Ketterman (*J A M A* 106 26 (Jan 4) 1936) has written about psychic and somatic disorders He quotes Klander, who cited "instances of emotional disorders causing not only blushing or dermographia but edema, vesicles, bullae, and even ecchymoses and hemorrhages" The brain and the whole visuosensory system is of ectodermal origin just as the skin is If "emotional" disorders can cause visible pathology in the skin, may they not also cause analogous changes (edema, ecchymoses etc) in the retina, optic nerves, chiasm, tracts, and radiations, and in all other parts of the brain, invisible to the eye but visible to the imagination as deduced from the evanescent field defects and the altered personality reactions of the patient—reactions which we label as "neuroses"?

Many psychiatrists explain the psychoneuroses by one of two hypotheses According to Meyer's psychobiologic concept, stress is placed on the conscious life experiences of the patient such as a feeling of futility, or failure, or insecurity, loss of love or a loved one, or anything causing grief, remorse, fear, shame, dread, or despair According to Freud's psychoanalytic concept, a neurosis arises out of unresolved conflicts of the unconscious mind There is guilt, anxiety, frustration, and conversion

I personally prefer Much's statement that all psychic disturbances are of physical origin Or, as Fetterman says, "Correlation of psyche and soma makes it possible to understand neurotic diseases more intelligently The reality of neurotic symptoms, however unphysiologic they sound, must be believed in, for through the autonomic nervous system actual physiologic and even tissue changes may take place Alvarez says, 'Just as there is blushing and blanching of the skin, there may also be vasomotor changes inside'"

I do not believe that transitory field defects in neurotics are due to a malfunctioning psyche I do believe that there are definite transitory changes in the nutrition and blood supply of various parts of the brain with resulting alterations in both mental and physical function The outlook for progress is not too promising for, as Pickworth (*Brit M J* 1 265 (Feb 5) 1938) recently said, "Superstition demands an infinitely more complex control of the already complex nervous system and thus hinders study of a humbler control by the vascular system"

I can find nothing to criticize in Dr Gipner's essay I have seen cases similar, in many ways, to his 4 cases At this time I wish to stress the necessity of taking fields in all cases of persistent headache or of optic atrophy because of the following case

Two years ago I saw a man who had had poor vision (with optic atrophy) in the left eye for twenty years For five months he had suffered from blurring of vision in the right eye, dizziness, headache, and loss of "side vision" Ophthalmologists had given him glasses and investigated all "foci of infection", many teeth had been removed to eliminate the "toxin" causing the left optic atrophy A field had never been taken! When I saw him, he had a typical bitemporal hemianopsia, demonstrable even by confrontation Dr H Van Wagenen operated on him a few days later for a pituitary tumor The patient is alive and well today

It has been a privilege and a pleasure to discuss Dr Gipner's paper I have two questions to ask (1) Does Dr Gipner believe that the amaurosis occurring immediately after the injury in Case 1 was of psychic or organic origin, and (2) does he believe that the so-called functional field defects are due to pathologic psychology or that they can or will at some future time be explained as manifestations of pathologic physiology?

Dr Thurber Le Win, *Buffalo, New York*—The paper we have just listened to is a most timely one The author, Dr Gipner, said little has been written on the subject If my reading can be evaluated, I would make the statement that precious little has been written

We never know when we may run into these patients Today in our busy offices the neurotic patient may receive too little sympathy We have more than enough to do to take care of those with definite organic disease, definite symptomatic troubles, and well recognized infections and injuries without spending a great deal of time with those unfortunates who have the triad of too much time, money, and imagination We cannot however, dodge the fact that neurotic patients are still a problem and we must attempt conscientiously to help solve their difficulties In other words, we

difficulty She had a real injury and her fields showed that she expected sympathy above all else

In Case 2, he told us the fields were checked by an ophthalmologist I think it was Dr Walter Lillie, of Philadelphia, who said the technician should not be given the entire responsibility of field taking I think this is most wise, especially again in times such as these I wish to emphasize this as strongly as I can As Dr Gipner says, a perimetrist may consider the lesion to be pathologic when no pathology exists

Again we must remember that neurotic patients may develop true organic lesions I recently saw a young lady who was extremely neurotic and had been told at an excellent clinic in the East that her eyes were normal Her fields were never the same twice Her physician, upon her return from the clinic, told me he found an abnormal oblique muscle insertion Puzzled at this, a careful examination was made and it was found, in addition to her neurotic symptoms, that she had a tumor of her lachrimal gland which was proved by biopsy

If I may be permitted I would say patients with refractive errors alone are fortunate Those with diagnosed pathology may or may not be fortunate and the neurotic patient can be, unless we are ever on guard, the most pitiful one of all

So I think the calling to our attention of using care, extreme care, in handling these patients, is both timely and valuable

Dr Gipner—In reply to Dr Duggan's first question, it was my impression that the immediate blindness in Case 1 as well as the subsequent field defects were functional. As to the second question,

TABLE 1.—Analysis of 62 Consecutive Pantopaque Myelograms

	Cases	Per Cent
Radiographic Findings Positive	45	72.5
Found at operation:		
Protruded disk	29	47
Tumor	5	8
Arachnoiditis	1	1.5
Thickened ligamentum flavum	1	1.0
No defect	2	3
Not operated upon:		
Clinically protruded disk	7	11
Radiographic Findings Negative	17	27.5
Found at operation:		
Protruded disk	1	1.5
Tumor	1	1.5
Not operated upon:		
Clinically protruded disk	1	1.5
Clinically no protruded disk	14	23
Analysis		
Total myelograms	62	100
Incorrectly diagnosed	5	8
Apparent accuracy		92

the needle, and the medium is injected slowly into the subarachnoid space. This should be accomplished easily; and if marked resistance is encountered, the exact position of the point of the needle should be checked. When the pantopaque has been injected, the syringe is detached from the needle and the stilette is replaced. A sterile gauze dressing is then placed over the adaptor of the needle and the patient is ready for the examination.

Fluoroscopy and Radiography.—After the examiners have become dark-adapted, fluoroscopy is carried out. The pantopaque should be seen pooled in the middle lumbar region near the point of the needle. The fluoroscopic table should be manipulated slowly, since the medium flows very rapidly. To prevent pantopaque from flowing into the cranial cisterns, where it may be immobilized, or from flowing rapidly over the lumbar curve, which may lead to globulation, the examiners should avoid lowering the head of the patient too much or too rapidly. The foot of the table should first be lowered gradually, and any deviations in the pantopaque column, particularly of the head of the column, studied under fluoroscopy. "Spot" radiographs are taken as defects in the outline of the opaque column are noted, and of all suspicious areas, since occasionally minimal defects will be apparent only on the films. When the pantopaque has been collected in the terminal sac, the table should be tilted slowly in the opposite direction, and the medium observed for deviations as it flows in this direction. These maneuvers may be repeated until a satisfactory examination is completed. Sometimes it is desirable to roll the patient from side to side in order to study each nerve root adequately. For medially located lesions it is important to make supplementary lateral and oblique radiographs.

Removal of Pantopaque.—Following radiography, the pantopaque is collected around the tip of the needle under fluoroscopic visualization, and aspirated by means of an empty sterile syringe attached to the needle. It should be possible to remove 80 or 90 per cent of the injected pantopaque without much difficulty. The amount removed can be identified in the barrel of the syringe, where it forms a layer under the spinal fluid. At times it is necessary, during aspiration, to turn the needle gently when its bevel becomes blocked by a nerve root or a meningeal margin. Occasionally the medium must be maneuvered under the tip of the needle two or three times before all of it can be removed. Finally, the needle is removed, and a sterile dressing is applied.

Aftercare of Patient.—The patient may be permitted to move off the fluoroscopic table into his bed, but the same precautions should be taken as those followed after a simple lumbar puncture. The patient should be kept in bed for six to twenty-four hours. If the examination has been carefully done, there should be little discomfort.

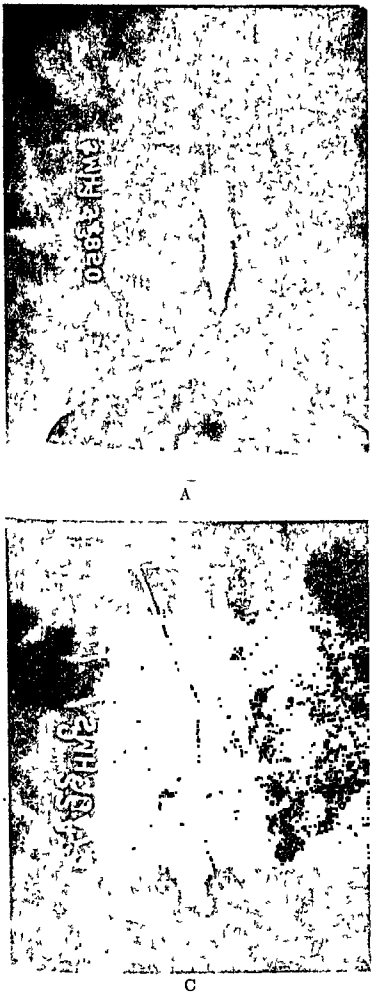
Side-Effects.—The incidence and severity of the side-effects following pantopaque myelography with aspiration of the medium are but slightly greater than with ordinary lumbar puncture. In 10–30 per cent of such cases there may be transient symptomatic reactions consisting of slight temperature elevation and increase of symptoms referable to a back condition. When the medium is not removed, similar transient side-effects occur with a slight elevation of temperature in a greater per cent of patients. To reduce the reactions to a minimum and to facilitate the absorption of the medium, most of the pantopaque should be removed by aspiration after myelography.

Contraindications.—Pantopaque should not be injected when a lumbar puncture is contraindicated, nor within ten days of a previous lumbar puncture. The latter precaution is necessary to avoid subdural and extra-arachnoid extravasation. An injection should not be carried out until the operator is certain that his needle is in the subarachnoid space.

A number of typical pantopaque myelograms are given in Figure 1.

Analysis of Sixty-Two Consecutive Myelograms

The diagnostic value of pantopaque is illustrated by the analysis in Table 1 of 62 consecutive myelograms selected from the middle of the series of 125. Each of the persons involved in the interpretations had had an experience of 10–12 cases with pantopaque, and the results may be regarded as fairly typical of what may be obtained using the new medium without special experience. Of the group of 62 cases, 45 had posi-



A B C D

FIG. 1. T

tive and 17 negative radiographic findings. Surgical exploration was carried out on 38 of the cases with positive findings, and in all but 2 of these the radiographic diagnosis was confirmed at operation. The 36 cases with confirmed diagnoses included 29 protruded disks, 5 tumors, 1 arachnoiditis, and 1 thickened ligamentum flavum. The 2 cases in which the radiologic findings were positive, but which were found to be negative on operation, showed such definite defects in the myelograms that there is some question as to the completeness of the surgical exploration. Subsequent follow-up may reveal persisting symptoms. Provisionally, at least, these two cases must be scored against the accuracy of the procedure. The 7 cases in which a protruded disk was diagnosed both on the basis of radiographic and of neurologic findings, but which were not operated upon are, of course, questionable. Nevertheless, they may be fairly included in the analysis as having been correctly diagnosed.

Turning to the 17 cases in which the radiographic findings were negative, 2 of these were subsequently operated upon. In one case a protruded disk was found at the fifth lumbar, and in the second a syringomyelia was discovered at the sixth cervical vertebra. In the first of these cases the radiographic interpretation was too cautious, and in the second the technic employed for the visualization of the cervical region was at fault. Another case that clinically presented the picture of a protruded disk showed a completely normal myelogram. Since operation was refused, the diagnosis is questionable. Provisionally this case, also, must be considered as having been incorrectly diagnosed by radiographic methods. The 14 cases that gave negative radiographic and negative neurologic findings, and which were not operated upon, may be included among the accurately diagnosed patients, although the proof is not as objective as could be desired. Summing up, out of the series of 62 cases, 5 appear to be incorrectly diagnosed, which leads to an apparent diagnostic accuracy of 92 per cent. It may be added that in the myelograms carried out subsequent to the above series, the diagnostic accuracy, scored in the same way, has been nearly perfect.

Discussion

Apart from the group associated with the development of pantopaque,[2] recognition of the value of the medium for myelography is due to Spurling and Thompson,[3] Spurling and Scoville,[4] Wyatt and Spurling,[5] Cone,[6] Bradford,[7] Bell,[8] Echols,[9] and others.[10] It has been pointed out by Pugh[11] that in some respects pantopaque is too fluid, and that it tends to globulate as it is passed over the lumbar curve. This rarely occurs if the patient is properly supported and the fluoroscopic table is manipulated carefully. It has been reported by Bell[12] that a considerable degree of globulation of the medium occurred in one patient with a high protein content of the spinal fluid. In this case the medium could be removed satisfactorily, but the aspirated fluid was essentially an emulsion of pantopaque and spinal fluid.

In spite of a considerable experience with pantopaque over a period of several years, the rate of absorption of the medium in man cannot be stated with any exactness. A variety of factors evidently influence the rate of absorption. If the conditions within the spinal canal are such that a marked degree of globulation of the residual pantopaque occurs, or if the medium is spread over a large surface, the rate of absorption in man appears to approach the rate of 3 cc. per year that was noted in dogs. On the other hand, when the medium is contained in the cauda equina region, the rate of absorption is so slow that it may be of the order of 0.5 to 1.0 cc. per year. As time passes small particles of the medium become fixed, and the rate of disappearance becomes slower and slower. Nevertheless, observations by several groups, particularly by Wyatt and Spurling,[5] indicate that absorption should be complete at the end of several years. Studies on the rate of absorption of residual pantopaque in the group of patients discussed in this paper will be reported later.

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WILMS' TUMORS

ARCHIE L. DEAN, M.D., New York City
(From the Department of Urology, Memorial Hospital)

STATISTICAL studies made by us of the clinical material of the Memorial Hospital and by others of the incidence of all malignant tumors of infancy show Wilms' tumors second in frequency only to tumors of the eye. In adults renal tumors make up only about 0.5 per cent of all cancers, but in children approximately 20 per cent are in the kidney. With few exceptions all of these are embryonal adenomyosarcomas, or Wilms' tumors, by far the most common tumor of the genitourinary tract in infants.

Wilms' tumors are congenital, embryonal, mixed tumors. They arise from the kidney anlage. The disease has been found in the seven-month fetus and 30 cases have been reported in adults, but it is exceedingly rare after the seventh year. The average age of patients when the tumor has been discovered is about three years. The sexes are affected equally.

In a short discussion it is impossible to describe the many theories of the genesis of Wilms' tumors. Since these tumors may show marked variations in the degree of differentiation of their component cells and in the number of tissues represented, it seems reasonable to suppose that they originate at different developmental periods of the embryo. If the tumor arises before the urogenital ridge has formed the nephrotome multipotency of these cells may account for the elaboration of smooth and striated muscle fibers, fat and cartilage cells, and sarcomatous and tubular elements. At a later stage, if the renal blastema or nephrotome is the predominant contributing structure to the tumor, primitive renal tubules or even primitive glomeruli may be recognized. We believe that the stage of embryonal development at which Wilms' tumors arise is a matter of great clinical importance because this factor modifies not only the structure of the growth but its natural history and also to a considerable degree its response to various types of treatment.

Grossly these tumors are usually unilateral, although in Wilms' collected series 7.2 per cent were bilateral, and Kretschmer and Hibbs found bilateral occurrence in 12 per cent. I believe the bilateral origin of Wilms' tumors is somewhat exaggerated by these figures which, in many instances, were based on autopsy examinations. Usually at the time of death Wilms' tumors have metastasized widely and it is impossible to determine whether involvement of the contralateral kidney was primary or metastatic.

The tumor may occur in any part of the kidney, although usually the lower half is first involved. At first the growth is always within the renal capsule. When this is ruptured extension rapidly follows the routes of least resistance. Practically all Wilms' tumors are surrounded by a dense capsule which completely separates the tumor from renal parenchyma. This capsule usually remains intact until the growth is quite large. Due to this encapsulation many observers have described Wilms' tumors as "in" the kidney but not "of" the kidney. The capsule also is largely responsible for the infrequency of urinary signs.

Wilms' tumors grow aggressively. They may extend toward the renal pelvis, pushing kidney tissue outward to form a pseudopolyp, or the growth may protrude from the hilus. The kidney may retain its shape, but in many cases it has been found fitting like a small cap on the tumor mass. The tumor usually is bluish and smooth, although irregular lobulations are present in more advanced stages. On section the substance is soft and grayish-white or yellow. In parts it may look medullary, fibrous, gelatinous, vascular, or edematous. When situated retroperitoneally the tumor displaces the colon forward and mesially. On the right side it may press against the duodenum and obstruct it. After the renal capsule is ruptured the disease is likely to extend through the peritoneum and involve the omentum and adjacent organs of the abdominal cavity. All of the viscera may be affected. The walls of large blood vessels, especially veins, and the ureters have been destroyed; even the diaphragm is but a temporary barrier. These tumors may grow to a weight of 5,000 Gm., which may be 25 per cent or more of the weight of the infant.

The veins of Wilms' tumors are comparatively large and their walls are thin and fragile. They frequently rupture spontaneously, causing infarcts. Often they are invaded by tumor cells. As a result, although lymphatic extension occurs, the earliest demonstrable metastases are usually blood-borne and are found in the lungs, the brain, or in the skin. The majority of the patients seen by us within a week of the discovery of their primary tumors had demonstrable metastases, while patients examined after a greater delay had metastases with even more frequency. On the other hand, there was a small group of children

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who had no metastases several months after the primary tumor had been found.

Histologically, Wilms' tumors are composed entirely of tissues of mesodermal origin. In some specimens the predominant cells are round, hyperchromatic, and undifferentiated; in others differentiation is more complete and one can see abortive attempts at the reproduction of renal tubules and glomeruli. Interspersed among these structures of renal blastema origin may be found other tissues such as smooth tissue, striated tissue, myxomatous tissue, and, rarely, cartilage and fat.

The epithelial elements of the tumor consist of tubules of variable sizes and shapes lined by cylindrical or cuboidal cells. The basement membrane is often imperceptible. The glandlike tubules are usually single layered and have a tendency to form cysts. In some areas the epithelial tissues form solid cords or strands. Abundant mitoses in the cells of these tubules indicate their activity in the histogenesis of the tumor. Smooth muscle fibers are found in these tumors with some regularity. Ribbert and Busse assert that the rarer striated muscle fibers develop from them by metaplasia. Other structures, such as fat and myxomatous tissue, are only occasional components of the tumors but they occur sufficiently often to justify the use of the term "mixed tumor."

Symptoms

In common with all other kidney tumors, Wilms' tumors produce no symptoms until late in their life history. When symptoms arise the disease is far advanced. As the tumor grows in the infant there is a gradual enlargement of the abdomen, which may be accompanied by constipation and malaise. After a time, in the majority of cases entirely by accident, a large mass is discovered in one side of the abdomen. If growth continues it is not long before there is vomiting, loss of weight, asthenia, anorexia, an increased rate of tumor growth, and the appearance on the abdomen of tortuous, dilated, superficial veins. Soon the terminal stage is reached with ascites, marked emaciation, a tremendously enlarged abdomen, and perhaps obvious metastases. Death is usually caused by cachexia, and occasionally by intercurrent disease.

The first symptom in the 80 patients seen at the Memorial Hospital was:

1. Accidental discovery of a mass in the abdomen—64 per cent.
2. Pain in the loin or abdomen—16 per cent.
3. Asthenia and malaise—12 per cent.
4. Hematuria—4 per cent.
5. Frequency of urination—4 per cent.

Pain is seldom an important symptom and it is always difficult to evaluate. It may be colicky, associated with constipation, or it may occur when the rapidly growing tumor exerts tension on the renal capsule or traction on adjacent organs.

Hematuria, usually painless, has been reported in between 10 and 25 per cent of children with Wilms' tumors, in contrast to an incidence of between 75 and 85 per cent of adults with tumors of the kidney parenchyma. This marked differenc probably is caused by the encapsulation of Wilm tumors. Not infrequently the bleeding is fro the congested parenchyma of the kidney rath than from the tumor proper. Hematuria is a ways intermittent, with recurrences at irregul and sometimes widely separated intervals. I common with all kidney bleeding, the blood is di fused throughout all of the voided urine, and i the absence of clots it is painless.

Urinary symptoms are infrequent and insign ficant. This, again, probably is due to the separ tion of the tumor by its capsule from the ren pelvis and parenchyma. Erythrocytes in th urine sometimes are found on microscopic exan ination, but many tests may show normal urin especially when the diseased kidney does not fun tion because of pressure atrophy. Urinalysis ma aid in detecting the onset of infection, and it significant when albuminuria follows pressure o the tumor.

Diagnosis

A palpable tumor is an important discovery i either a child or an adult, but in a child it may l the only diagnostic sign. There may be difficult in feeling the tumor if the child is obese. Als in young infants the kidney normally lies deep in the pelvis than in adults. Careful bimanu palpation of a Wilms' tumor may demonstrate i location, size, shape, consistency, mobility, ar tenderness on pressure. The surface is usual smooth, although it may become lobulated. I most cases the consistency is elastic, althoug when necrosis occurs or bleeding takes place in i substance the tumor may be as soft as in hydr nephrosis. Mobility depends on the size of th growth and the amount of available space remai ing in the abdomen. For a time, at least, prima tumors are not adherent and move with respir tion. Fever may be the first and for a time th only symptom. It is frequent with Wilms' tumor as it is in children who have lymphosarcoma or e dothelial myeloma. A majority of our patien had intermittent fevers ranging from 101.5 104 F. The temperature elevations seemed u related to the stage of the disease.

Differential Diagnosis

The clinical features of a large, rapidly growi kidney tumor in a young child are usually so de

inite that a tentative diagnosis should be made in most cases by physical examination. However, there are a number of intra-abdominal masses from other causes:

1. Lymphosarcoma of retroperitoneal lymph nodes is centrally located and is surrounded by resonant intestines. In the case of a Wilms' tumor resonance is mesial to the abdominal mass. Regional lymph nodes are more frequently affected by lymphosarcoma.

2. Tumors of mesenteric lymph nodes such as lymphosarcoma, malignant lymphogranuloma, or tabes mesenterica are massive, somewhat superficial, and situated near the umbilicus.

3. Suprarenal tumors in children are often associated with disturbances of the endocrine system.

4. Tuberculous kidneys are seldom as large as renal adenosarcomas. Urinary symptoms are more prominent and laboratory findings are often pathognomonic.

5. Hydronephrosis should be differentiated by a urologic examination.

6. Polycystic disease is always bilateral, but one kidney may be considerably larger than the other. Retrograde pyelograms furnish the best diagnostic evidence.

7. Tuberculous peritonitis is sometimes difficult to differentiate from a Wilms' tumor. The general physical examination, doughy consistence of the abdomen, chest films, and family history should furnish clues.

8. Hepatic tumors are rare in children. Although they seldom are accompanied by jaundice, there usually are severe gastrointestinal symptoms and abdominal pain.

9. Ovarian tumors are rare in childhood. Usually they are bilateral and can be palpated bimanually with one finger in the rectum.

10. Splenomegaly is more superficial than adenosarcoma of the left kidney and is situated higher in the abdomen. Blood examinations aid in detecting leukemia, malaria, or syphilis.

11. Pancreatic tumors are rare in children and cause unusually severe gastric symptoms and intractable pain.

12. Fecal tumors are more superficial than Wilms' tumors, and they are freely movable and accompanied by obstipation or intestinal obstruction. Roentgenograms taken after a barium enema usually clear up this diagnosis.

13. Psoas abscesses should be differentiated by their more chronic febrile course, pain in the vertebral column, and characteristic roentgenographic changes in the spine.

Because the most painstaking general physical examination cannot establish a clear-cut diagnosis of a Wilms' tumor, and because by the time a suspicious mass has been discovered the disease is far advanced, more specific diagnostic measures must be carried out without delay. In most cases excretory urography will show enlargement of the kidney with displacement and characteristic pressure deformities of the pelvis and calices. However, poor function or complete obliteration of the pelvis and calices by pressure may render this test inconclusive. When the diagnosis has reached this stage a urologist should be consulted without further delay. Any properly trained urologist with modern equipment can perform a complete examination without injuring the youngest infant of either sex.

Even when excretory urography has demonstrated a kidney tumor I recommend cystoscopy with bilateral ureteral catheterization, functional studies, and retrograde pyelograms. These procedures corroborate the earlier findings, show more accurately the function of the good kidney, and determine whether or not the disease is bilateral.

Under no circumstance should one incise a Wilms' tumor to obtain material for a microscopic examination. This ill-chosen operation destroys the capsule of the tumor and encourages rapid and widespread growth.

Treatment

Perhaps there is no question we have been asked more frequently during the past few years than "What is the best treatment for a Wilms' tumor?" Unfortunately, there can be no clear-cut unqualified answer because the problem is so complicated. We have observed that Wilms' tumors originate at different developmental periods of the embryo, and as a result may show marked differences in structure, rate of growth, and response to various kinds of treatment. Other variable factors of fundamental importance are presented by the condition of the patient, the ability of the surgeon, and the availability of the best radiotherapy. Finally, no sufficiently large groups of patients have received the same treatment so that comparison of results clearly establishes the superiority of one procedure.

Fortunately, there is one fact of which we are certain—the cure of a patient with a Wilms' tumor depends on the removal or complete destruction of the growth before metastasis occurs, because there is no recorded instance of any patient with a metastasis having been cured by any type of treatment or combination of treatments. After a Wilms' tumor has grown large enough to be palpable there is always imminent danger of metastasis taking place. We have repeatedly observed the appearance of metastases within two to three days of the discovery of the primary tumor in patients under study in the hospital. Therefore, only prompt, complete sur-

gical removal of the tumor provides ideal treatment.

The possibilities of the best surgical care have been demonstrated by Ladd,[1] who, after promptly supplying the infant's needs of blood and fluids, utilizes the transperitoneal approach and first ligates the renal vessels to prevent disseminating viable tumor cells, then removes the growth *en masse*. The end results of this procedure, as reported from the Children's Hospital in Boston, are incomparably better than those from any other source, and we must consider Ladd's methods the ideal.

About fifteen years ago, when little encouragement seemed to follow the treatment of Wilms' tumors by any methods, we decided to employ radiation alone, and did so in 20 cases. Of the patients so treated 5 are living, without any evidence of disease, five or more years after treatment was given. Although this is a high proportion of cures, this form of treatment is not recommended because in even the most radiosensitive cases it probably requires many months to completely devitalize the tumor, and during this time metastasis can take place. Furthermore, irradiation does not conserve any functioning renal tissue because in cases we have treated the kidney function has been lost. On the other hand, we have never seen evidence of any constitutional injury to the child from radiation, nor have any of the infants treated by us developed in any abnormal way.

In spite of the exceptional success of Ladd, the treatment of Wilms' tumors by surgery alone has been unsuccessful. Not infrequently the tumors are so large as to make up 20 per cent or more of the infant's body weight and their removal is difficult for even the most skilled. At the same time it must be remembered that the great majority of Wilms' tumors are treated by surgeons who see only an occasional case, and in their hands preoperative shrinking of the tumor appears to be of great assistance. For this reason I believe that preoperative radiation will result in the successful removal of a certain number of Wilms' tumors now considered inoperable because of their large size. Priestly and Broders[2] have reported that the patients with Wilms' tumors who did best at the Mayo Clinic were treated by radiation and surgery.

As soon as the primary tumor has been demonstrated every part of the body should be searched for metastases. If any are found the patient is inoperable and should be treated with radiation exclusively. Even when the lungs appear normal, roentgenograms of the chest should be repeated every two to three weeks. Complete studies of the blood should be made at five-day intervals during treatment. If no metastases are found, three portals (anterior, lateral, and posterior) should be outlined on the patient. In length these portals should extend from the upper to the lower limit of the tumor and each should be one third of the distance between the anterior midline and the posterior midline on the side of the patient's abdomen affected by the tumor. Using the 200-kv. roentgen-ray unit, with the usual filters, at 50 cm. distance, 100 r is delivered daily to a single port, the portals being treated in turn. In most cases within a few days shrinking of the tumor will be noted. Not infrequently by the end of two weeks the mass will have disappeared. Without delaying longer, the tumor should be removed. Occasionally the growth does not shrink under irradiation. If this does not take place after six or eight treatments one should operate without further delay.

The transperitoneal approach is best because the renal pedicle can be doubly clamped and ligated before manipulation of the tumor begins. However, if the tumor is small the usual loin approach can be employed. In this case one should also ligate the renal vessels as early in the course of the operation as possible. After the tumor has been removed one should carefully search the wound for extensions of the disease beyond the kidney. Not infrequently they are present but are not discovered. If disease beyond the kidney is found, postoperative radiation should be given. Since this condition requires more prolonged irradiation, four portals are outlined on the side of the abdomen over the tumor and 100 r is given to a single portal per day, the portals being treated in turn.

Infants not infrequently are intolerant of radiation. If administration of a daily dose of 100 r is followed by nausea, 75 r should be used. Blood counts should be performed every three to four days, and if the white cells fall below 2,000 per cu. mm. transfusions of whole blood should be given. Meanwhile, every effort should be made to maintain the infant's health at its best.

If metastases have been discovered, irradiation is usually worthwhile for its palliative effect, but practically without exception these infants steadily progress downhill, in spite of our best efforts.

References

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Discussion

Dr. Benjamin S. Barringer, *New York City*—The doubt that was implanted in my mind when Ladd first published his paper on the results of surgical removal of Wilms' tumors has not been resolved by

hearing Dr Dean's paper today Ladd's five-year survivals of some 50 per cent in some 60 cases is unduplicated by any previous statistics

Years ago we were enthusiastic at the Memorial Hospital over irradiation alone of such tumors Up to then there had been comparatively few five year survivals So we believed we had a clear field for experimental work Irradiation alone, while it generally caused a great shrinkage of the tumor, rarely cured these cases Then we tried irradiation followed by nephrectomy of the reduced tumor This, while it resulted in some controls, did not appreciably improve the statistics Such kidneys were certainly easier of removal, but metastases occurred just the same Then along came Ladd's results One or more competent surgeons operating in a children's hospital gave unprecedented results

Other competent surgeons have operated upon these tumors with poor results The tumors operated upon by Ladd were apparently not smaller than is seen at any other hospital and so not earlier diagnosed Therefore I am still puzzled Irradiation certainly has a place in the treatment I have seen a hopelessly large tumor with metastasis controlled for five years by irradiation alone Yet my confusion still exists I believe we must await further publications and analysis from Ladd to resolve the confusion

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"DOCTOR JONES' SAYS—

This business of self medication—folks doctoring 'emselves of course there's some of 'em right now—at times they have to do their own doctoring or go without But a good many of 'em, in my opinion, they'd be better off to let nature take its course Nature's a pretty fair doctor, under ordinary conditions if she's left alone and given a chance And,

that're liable to affect his judgment

Of course there's a certain amount of family medication—using the ordinary home remedies for simple conditions—it's often necessary and usually it's perfectly safe, so long as it's handled by somebody their ing oil for an abdominal pain that may come from acute appendicitis

But about the worst form of self medication I know of (it's always a surprise to me when I find intelligent people doing it)—that's taking medicine the doctor's left some time for somebody else Like Grandpa Pepper, the time he thought he had "rheumatiz" He took some pills, he said "the doctor left for Mis' Doane, the time she had rheumatiz She said they helped her," Grandpa says, "but they didn't seem to hit my case" Well, one reason they didn't was that he didn't have "rheumatiz" at all, he had "water on the knee"

The doctors, in spite of years of preparation and experience—every now and then, even after they've made a definite diagnosis, they're in doubt as to what it's wise and safe to give a patient What'd cure one

ists call incomple drug like calomel (a chloride of mercury) if it's mixed with certain other things, it's changed into bichloride of mercury, a violent poison Other things mixed together, like iodine and ammonia compounds, or glycerine and certain chemicals, may form explosives I never actually heard of anybody exploding from taking some blown up a few of igh to do it —*Paul*

GENES SOMETIMES FUNCTION ALONG WITH "PRIMERS"

Genes, the course reign alor sity of In in which genes that determine certain factors or courses of events could not operate except in the presence of at least traces of other substances which he called "primers" He gave them this name, he explained, because their action is rather like priming a pump—you put a little in and you get a lot out

Although primers are found in the general protoplasm of the cell, their origin is still tied up closely with that of the genes themselves, they arise with them if not indeed actually out of them Prof Sonneborn has also found evidence for the existence of primers in the cell nuclei, therefore in intimate association with the genes themselves, which are commonly conceived as chemical units in or on the chromosomes of the nucleus —*Science News Letter, Jan 20, 1945*

THE SIGNIFICANCE OF HYPOSTHENURIA IN PROSTATISM, WITH SPECIAL REFERENCE TO NOCTURIA—A CLINICAL STUDY

JOSEPH A. LAZARUS, M.D., and MORRIS S. MARKS, M.D., New York City

INCREASED nocturnal frequency of urination, a prominent and troublesome manifestation of prostatism, is frequently the earliest symptom associated with prostatic disease, and at times the primary reason which compels patients with prostatic disease to seek medical advice. Nocturia is usually associated with increased diurnal frequency, but the urologist not infrequently encounters patients who complain of one and not the other urinary disturbance.

In order to better evaluate the significance of nocturia, a proper understanding of its causes is indispensable. Nocturia is a frequent symptom in cases of chronic nephritis, and is due to failure of the kidneys to concentrate urine. A brief review of the modern concepts of renal physiology and pathology will help to clarify the subject under discussion.

The two main functions of the kidneys are (1) glomerular filtration and (2) tubular absorption. Tubular function is closely dependent upon glomerular activity. It is to be recalled that the renal tubules are supplied with capillaries which take their origin in the efferent arterioles of the glomeruli. In fact, the total blood flow through the human kidneys is approximately 500 cc. per minute, and all this blood passes through glomeruli and through the peritubular capillaries. It therefore follows that anything affecting the glomeruli must at some time or other affect the capillaries supplying the tubular epithelium, and consequently affect tubular function. Furthermore, any lesion affecting the glomeruli will produce changes in the rate of blood flow through the involved glomerular tufts with resultant change in the quantity of filtrate. Tubular function is also directly affected by certain noxious agents capable of producing necrotizing changes in the tubular epithelium, which may escape with the glomerular filtrate. The rate of flow of glomerular filtrate also affects tubular function. Glomerular filtration depends directly upon the tension driving the blood through the glomerular tufts, the number of functioning glomeruli, and inversely upon the tension present within Bowman's capsule. Any condition capable of influencing these factors will, sooner or later, lead to changes in glomerular filtration, which in turn will ultimately affect tubular function.

It is estimated that about 100 liters of glomerular protein-free filtrate with a specific gravity of 1.010 pass into the tubules every twenty-four hours. This filtrate consists of a watery solution of crystalline substances in about the same concentration as these substances are present in the plasma. The largest portion of this filtrate, however, is reabsorbed by the tubular epithelium. The proximal convoluted tubules, which are situated within the renal cortex, reabsorb water, sugar, urea, and chlorides and have the property of excreting phenolsulfonphthalein and diodrast. The cells of the distal convoluted tubules, which are also situated within the renal cortex, render the urine highly acid. The final function of concentrating the urine by absorption of water is carried out by the tubular epithelium of Henle's loops. The collecting tubules act only as conduits to the calices.

The hydrostatic pressure of the blood in the renal vessels is higher than in any other capillary system in the body, estimated at about 60 per cent of the pressure within the aorta. The persistently high hydrostatic pressure within the glomeruli is maintained by the small caliber of the glomerular efferent arterioles. The differential between the high hydrostatic pressure in the glomeruli and the lower osmotic pressure of the plasma protein accounts for the fact that water and solutes pass from the blood into Bowman's capsules. The direction of flow in the tubular spaces is diametrically opposite that of the glomeruli; and this is due to the fact that the blood in the peritubular capillaries differs from the blood in the glomeruli in two important respects. Because of loss of water from the glomerular blood, the blood in the peritubular capillaries is more concentrated, with the result that the osmotic pressure of its proteins is approximately 25 per cent higher than that of the glomerular blood plasma. Second, the hydrostatic pressure of the peritubular capillary blood stream is lower than the osmotic pressure exerted by plasma proteins contained in this fraction of the blood. This combination of factors explains why the direction of flow of water and solutes in this system is from the tubules into the blood stream.

Renal efficiency may be impaired by pathologic changes within the kidney or by obstructive lesions in the lower part of the genitourinary tract. The two most frequent disorders occurring within the kidneys are (1) primary pathologic changes within the glomeruli (glomerulonephritis); and (2) sclerotic changes in the efferent glomerular arterioles. Although the cause or inciting agent of acute glomerular nephritis is still unknown, it is quite certain that in the vast majority of cases

bacteria cannot be demonstrated within the lesions

The permanent somatic effects are due to scar formation which follows the initial inflammation (chronic glomerulonephritis) The underlying cause of renal pathology in chronic glomerulonephritis (azotemic type) is an interference with the free flow of blood and subsequent reduction in blood volume through the glomeruli and peritubular capillaries, resulting finally in the total obliteration of many glomeruli and the complete atrophy of their accompanying tubules As a result of this, a reduction in the size of the renal filtration system occurs, which is manifested clinically by a rise in systemic blood pressure, a reduction in the concentrating power of the kidneys and the presence of albumen in the urine Since in this type of nephritis the pathologic process is not primarily one involving the afferent glomerular arterioles, but rather groups of glomeruli, it is obvious that the glomeruli which are spared attempt to compensate by increasing the amount of filtrate which they pass This in turn is accomplished by an increase in hydrostatic pressure within these glomeruli resulting from a general rise in the systemic arterial blood pressure The rapidity with which the filtrate is forced through the intact tubules is augmented to such a degree that reabsorption is hindered Further impairment of water reabsorption occurs as the renal damage progresses to include the cells of Henle's loops by virtue of impaired circulation through the peritubular capillaries

The second type of renal involvement causing impairment of renal function is sclerosis affecting the afferent arterioles of the glomeruli Although the pathogenesis of this type of renal disease differs from that found in glomerulonephritis, the end result is the same, namely, the reduction in blood flow through the glomeruli and subsequent curtailment of circulation through the peritubular capillaries, with resultant impairment of tubular function, leading to reduction in the concentrating power of the kidneys

Obstructive uropathies cause renal impairment in two ways (a) by increasing the intratubular hydrostatic tension and causing pressure atrophy of the tubular epithelium This in turn leads to (b) increased pressure upon the peritubular capillaries which impairs circulation through them and produces further damage of the tubular cells The end result of these changes is impairment of tubular reabsorption and the passage of urine of reduced specific gravity Should the obstruction continue, glomerular damage invariably follows as a result of the increased hydrostatic pressure within Bowman's capsules By increasing intracapsular tension there occurs a reduction in glomerular filtration

Evaluation of Renal Function

Renal function, as judged by laboratory standards commonly employed by urologists, continues apparently unaffected as long as enough blood is driven under adequate hydrostatic pressure through a sufficient number of normal glomeruli Retention of increased quantities of nitrogenous products within the blood plasma occurs only after approximately two thirds of the functioning renal mass has become incapacitated The reason for this is that the remaining glomeruli compensate by hypertrophy and by increased work For this reason it is useless, in the majority of urologic cases, to rely upon blood chemistry studies to ascertain renal function, particularly in the early stages of disease

In the urea clearance test, however, we have a procedure which is capable of measuring glomerular activity and of permitting one to estimate the degree of glomerular reserve This test does not depend upon the urea content of the blood, but varies directly with the quantity of blood flowing through the kidneys, and inversely with the hydrostatic pressure within Bowman's capsule In other words, any condition which influences the volume-blood flow through the kidneys or the pressure exerted within Bowman's capsule will be reflected in the urea clearance values Although blood chemistry figures may remain unaltered in spite of extensive renal destruction, urea-clearance values will be lowered since it is impossible for the same amount of blood to be cleared of its urea per minute because of curtailment of the number of functioning glomeruli Reduction of the urea clearance to 40 per cent of normal is consistent with a fairly good state of well being

To ascertain the ability of the kidneys to concentrate urine is to establish the status of the renal tubular apparatus As a renal function test, it might be stated that a reduction of specific gravity of the urine is of greater clinical significance than either the urea clearance or phenolsulfonphthalein tests in renal disease, since it antedates both of these It can definitely be assumed that a patient who fails to concentrate urine, even though the urea clearance values are normal, is suffering from renal insufficiency When coupled with lowered urea clearance values, it may be assumed that the underlying renal pathology is of a more serious nature Mosenthal states that diabetes mellitus and severe anemia may be associated with lowering and fixation of the specific gravity of the urine In this connection it is well to state that there is no fixed standard of normality as regards specific gravity readings, since values differ markedly among relatively normal persons What does matter

is the degree of reduction in specific gravity which may occur in a person afflicted with renal pathology.

The problem which confronts the urologist in dealing with patients with prostatic disease whose chief complaint is nocturia is to determine, as far as it is possible to do so, the underlying cause of the nocturia. Is it the result of an antecedent chronic nephritis; is it due to impairment of tubular function resulting from back pressure caused by the obstructing prostate; or is it due to local irritation of the vesical neck, reduced bladder capacity, or increased residuum, or to a combination of these factors actually produced by the prostatic enlargement?

A carefully taken history may reveal the fact that the patient had had scarlet fever during childhood or symptoms suggestive of an attack of acute glomerulonephritis. The presence of albumen (not due to blood or pus) and casts in the urine are always of the utmost importance. A careful fundoscopic examination will frequently reveal the presence of arteriolar disease. A routine urologic survey should include a blood chemistry study (urea nitrogen, creatinine, uric acid, urea clearance), urine concentration test (Fishberg), and a fractional two-hour phenolsulfonphthalein test. Of these, we place our greatest reliance upon the urea clearance and concentration tests.

Should the urologic survey indicate the presence of renal insufficiency, the question naturally arises as to whether it is due to primary or secondary renal pathology. This is often difficult to ascertain with any degree of certainty. The presence of hypertension and of positive ophthalmoscopic changes would speak strongly in favor of a primary, and therefore irreversible, renal involvement. In the absence of such evidence we are forced to rely upon the "therapeutic test." Our experience has led us to believe that renal pathology resulting directly from an obstructive uropathy, i.e., an ascending renal injury, will usually subside following the relief of the bladder-neck obstruction.

Nocturia occurring in a patient with prostatic disease who clinically shows no evidence of renal involvement and who presents no abnormal laboratory findings can definitely be assumed to be due to the local pathology. Under these conditions it can further be assumed that after the removal of the offending lesion and the establishment of free drainage from the bladder the nocturia will most likely disappear or improve.

To correctly evaluate the significance of nocturia in a case of prostatism, we might state that when a pre-existing primary nephritic condition can definitely be established, the prognosis is poor. When the renal deficiency is found to be secondary to a bladder-neck obstruction, the chances of relief are infinitely better. And finally, when the cause is found to be purely local, a cure can be predicted with a fair degree of certainty once the cause is removed.

Our study consisted of a follow-up survey of a series of patients with prostatic disease both before and after operation, with the view of ascertaining the reliability of the concentration test as a means of appraising the true significance of nocturia. We found that improvement of the concentrating power of the kidneys was practically always associated with improvement in nocturia. In fact, we have been able, in the vast majority of our cases, to predict with reasonable certainty which patients would show symptomatic improvement by the way the specific-gravity curve acted. This condition held true in the case of patients who were subjected to surgical intervention and those who were treated conservatively. A patient who was subjected to the removal of a vesical-neck obstruction who did not show a steady and progressive elevation in the specific-gravity curve within a month or two after operation would rarely show any marked degree of improvement of his nocturia. Furthermore, a subsequent study of patients falling within this group would frequently show unmistakable evidence of irreversible renal pathology, which had undoubtedly been present before operation.

As regards therapy, we have found that in the group of patients suffering from primary renal disease, any improvement which had been noted in the nocturia was the result of the removal of obstructive lesions which had only aggravated an active or impending pre-existing nocturia resulting from failure of the kidneys to concentrate urine properly. However, when the presence of a vesical-neck obstruction was merely a coincidental finding in a patient complaining of nocturia resulting from a primary renal disease, little or no improvement of the nocturia could be expected from surgery, or from any other type of therapy, as far as we were able to determine.

Summary and Conclusions

Increased nocturnal frequency of urination is an outstanding and troublesome symptom of prostatism and one which has received but scant notice in urologic literature. We have in this paper attempted to discuss the causative background and the clinical implications of this condition, with the view of appraising its value as a prognostic aid in dealing with cases of obstructive uropathies. The laboratory procedures which we found to be most reliable in this work are urine concentration and urea clearance tests, in the order mentioned. Since nocturia is an outstand-

ing symptom in primary renal disease as well as in many cases of vesical-neck obstructive uropathies, it is incumbent upon the examiner when dealing with patients presenting themselves with prostatism to elicit all pertinent information regarding antecedent conditions which might point to pre-existing kidney disease, and to resort to examinations which might aid in bringing to light evidence of primary renal pathology.

Nocturia due to impairment of ability of the kidneys to concentrate urine resulting from vesical-neck obstruction is usually reversible. The rate of improvement varies directly with the ability of the kidneys to concentrate urine. A rising concentration curve offers a fairly accurate guide in predicting relief of this annoying symptom. Failure of the kidneys to concentrate urine following removal of the obstructing lesion usually signifies a pre-existing renal disease, and therefore warrants a doubtful prognosis. In the event that both conditions coexist in a patient, namely, primary renal disease and vesical-neck obstruction, any relief of nocturia which might be obtained is due solely to the removal of a condition which only aggravated the interference with the mechanism of water reabsorption by the renal tubular epithelium. It is our belief that improvement of nocturia in this group of patients is temporary, since the underlying renal disease is progressive and nonreversible.

There is another group of patients who present themselves for annoying increased nocturnal urinating frequency, and who have unmistakable evidence of primary renal pathology, but in addition are found to have varying degrees of vesical-neck obstruction. Following the removal of the obstructing lesion, nocturia persists and repeated urine concentration tests fail to show any elevation in the curve. The prognosis in these cases is poor and it can be assumed that the obstructive lesion of the vesical neck was coincidental and played no active part in the causation of the nocturia. We have found no form of treatment which offers permanent relief for nocturia resulting from primary renal disease.

875 Park Avenue
New York City

ADDED PROTECTION AGAINST DIPHTHERIA BEING GIVEN TO MORE THAN 4,000 BRONX CHILDREN

More than 4,000 school children in the Tremont, Fordham, and Riverdale health districts in the Bronx who have been found to have an unsatisfactory immunization status are being treated with toxoid. Dr. Sophie Rabinoff, the district health officer, announced that the majority of these children w[illegible] re enrolled [illegible] t time this at[illegible] unization [illegible] their school admission cards.

Health Department procedure calls for the immunization of every infant, beginning at six months of age and a "booster" dose three years after the first injection. Emphasis is placed on giving the [illegible] for children who [illegible] group had not received the booster dose and some had never been given any toxoid, Dr. Rabinoff contacted the parents of the youngsters. Two forms were sent to the parents. One form was to be filled out by the family doctor after the child had been given the injection. The other gave the parent's consent, when signed, for the school doctor to give the injection without charge, if the parent was unable to pay the fee of the private physician. At that time Dr. Rabinoff wrote physicians of the district asking them to urge parents to have their young children given the booster injection.

In stressing the importance of this injection, Dr. Rabinoff cited the recent death of an 8-year-old Bronx girl who had been immunized when an infant but who had not received any subsequent injections. "The death of this child," said Dr. Rabinoff, "should certainly be a warning to all parents. Experience has shown that the immunizing power of toxoid wears off, but that an addition of only one injection usually gives complete protection against diphtheria and no injections are necessary later. [illegible] twenty years ago it was one of the major maladies, carrying off hundreds of New York City children every year. However, should laxity in immuniza- announcement in a recent issue of its *Bulletin*. At the same time it reproduced the forms the Health Department asks physicians to fill out when children are immunized by them. It also urged physicians to cooperate with Dr. Rabinoff *in keeping* the districts free from diphtheria. The Regional Health Counsellors of the Department of Education in the district are also aiding in the work.—*Release from the Health Commissioner of New York City, Jan. 19, 1945*

CONFERENCES ON THERAPY

DEPARTMENT OF PHARMACOLOGY AND MEDICINE, CORNELL UNIVERSITY MEDICAL COLLEGE AND THE NEW YORK HOSPITAL, AUGUST 5, 1943

THESE are stenographic reports, slightly edited, of conferences by the members of the Departments of Pharmacology and of Medicine of Cornell University Medical College and the New York Hospital, with collaboration of the other departments and institutions. The questions and discussions involve participation by members of the staff of the college and hospital, students, and visitors. The next report will appear in the July 1 issue and will concern "The Treatment of Subacute Bacterial Endocarditis."

Surgical Measures for the Relief of Pain

DR. H. G. WOLFF: Today Dr. Ray is going to talk about pain which cannot be modified by an attack on its origins. He will give us some ideas about what can be achieved by cutting afferent pathways from painful areas.

DR. BRONSON S. RAY: Surgical treatment of pain is reserved largely for the patient whose pain is due to a cause for which there is no suitable treatment. The operation must be employed before the patient has become addicted to opiates, because very few with the drug habit will give up drugs even after complete alleviation of pain. It is also important to arrive as early as possible at a decision regarding the severity and intractability of the pain so that surgical treatment, if indicated, may be employed speedily enough to afford the patient early relief and before his general condition makes him a poor risk for an otherwise relatively safe operation. Most of the unsatisfactory results and the complications occur in those subjected too late to surgical relief of their pain.

To decide upon the kind of operation to be employed in the relief of intractable pain one must bear in mind the anatomy concerned. Here is a brief outline to refresh your memories: The afferent nerve fibers from the viscera travel through the sympathetic nervous system, and they have their cell bodies in the dorsal spinal-root ganglia, not along the sympathetic ganglionated chains. They enter the cord and synapse with the second neuron which crosses to the opposite side and ascends to the thalamus in the lateral spinothalamic tract. Visceral pain impulses take the same course within the cord as do somatic pain impulses, which traverse the peripheral nerves, the posterior roots, and the spinothalamic tract on the opposite side.

When we interrupt the pathway from a painful area we must decide upon the optimum point. If we are dealing with a restricted area of pain it may be that all that is needed is to interrupt the particular nerve which innervates that area. Sometimes that is possible, as I will bring out shortly, but we must remember that when a peripheral nerve is interrupted motor fibers may also be cut and in this case motor power must be sacrificed to get anesthesia. So interruption of peripheral nerves has its limitations, and if the pain is spread over a wide area one obviously cannot go about cutting all the peripheral nerves which supply and overlap in that region.

I may use as an example the chronic ulcerating lesion on the inside of the calf due to varicose veins. These ulcers may not heal over periods of years. One reason is because they are painful and this prevents adequate local treatment. One can relieve the pain by cutting the saphenous nerve, and although it will usually regenerate in due time, in the meanwhile the patient is free of pain.

One can cut peripheral nerves, crush them with a clamp under operative exposure, or one can inject a nerve with alcohol, which will cause its destruction. The alcohol can sometimes be injected into a peripheral nerve without surgery, but it is much safer to expose a nerve through a small incision before injecting with alcohol.

One can interrupt the nerve in the paravertebral region, i.e., where the nerve enters its spinal foramen. This site is often chosen as the point of interruption because one can introduce a long needle readily into this position and infiltrate the region with procaine if a temporary block is wanted, or inject 2 or 3 cc. of absolute alcohol if a more prolonged effect is desired. Both the sympathetic fibers and the somatic fibers can be dealt with by some kind of destructive procedure in the region of the paravertebral foramina.

The next procedure to be considered is that of the division of the dorsal root. This requires laminectomy, opening of the dura, and the exposure of the cord and of the posterior root as it enters the cord. Such an operation has the ad-

vantage of sparing motor fibers, and therefore preserving motor function to the part affected This operation is termed posterior or dorsal root section, or posterior rhizotomy

The second neuron can be interrupted as it crosses in the commisure, and an operation has been devised in which the posterior sulcus is entered and the spinal cord incised longitudinally This is a hazardous procedure which has obvious limitations and I think it is seldom used However, the division of the ascending pain tract, the lateral spinothalamic tract, above the level at which the painful impulses enter the cord, is a very useful procedure

You can realize that if one is dealing with a large painful area, as, for example, the entire lower extremity, interruption of peripheral nerves or even cutting all the dorsal roots which supply the lower extremity would be an unjustified procedure It would result in too much needless destruction If all the posterior roots supplying the lower extremity were cut, leaving only the motor roots, a useless extremity would result, because an extremity which lacks sensation lacks in particular the sense of position which is necessary in skilled movements Therefore, in dealing with large areas which are painful, we resort to procedures which interrupt masses of pain fibers coming from the region and avoid interfering with other functions

Section of the lateral spinothalamic tract interrupts pain and, at the same time, the temperature sense Chordotomy has in many places a bad reputation which, I believe, is not entirely deserved We must face the fact that division of the spinothalamic tract carries some hazard to life but the chief objection raised is that the operation has often not resulted in the complete loss of pain which had been hoped for I believe, however, that if the cord is divided sufficiently high above the upper segmental level of the pain and if the division of the cord is deep enough to take in a large enough area of the anterior-lateral portion of the cord, one can expect to produce complete analgesia below a certain level There will be a discrepancy of from three to five segments between the area of complete analgesia and the level of chordotomy Thus, in a chordotomy in the first thoracic segment the uppermost level of analgesia on the opposite side of the body would be the fourth to sixth thoracic segment This is due to the fact that pain fibers do not cross immediately on entering the cord

There are two optimum places to perform a chordotomy One is the upper thoracic region and operation here will produce, as I have implied, analgesia up to the nipple line If analgesia is desired at a higher level, the chordotomy must be done at a high cervical segment The latter naturally carries more hazard with it since there is danger of interfering with respiratory function at this level, either by the transitory edema of the cord that may accompany the maneuver or by actual division of pathways controlling respiration However, carefully performed, a high chordotomy may have great value

Often enough we are faced with the problem of bilateral pain in the pelvis and lower extremities In that case we can do, with a fair degree of safety and facility, a bilateral chordotomy at the upper thoracic level, on the other hand, a bilateral chordotomy at the upper cervical level is too hazardous for these cases and perhaps is never warranted

INTERN You do not section both sides at the same level?

DR RAY No, the incisions are separated by one or one and a half segments

There are times when it is useful to combine chordotomy and root section I mention that because we are often faced with a special problem in which I think the procedure is advantageous I refer to intractable pain in the upper chest and upper extremity Such a syndrome results often from malignant tumors at the apex of the chest the so-called Pancoast tumor In that case the pain can be relieved if all the posterior roots from the fifth cervical to the fourth thoracic are cut but this leaves a useless arm which has no sensation, so the procedure is not usually desirable If a high cervical chordotomy alone is employed it is usually found that the level of analgesia is not high enough to include the whole extremity But we have found that the combination of high cervical chordotomy on one side with division of appropriate posterior cervical roots on the other may afford the desired relief of pain in the upper extremity, yet preserve enough position sense so that the limb can still be used

Some have made attempts to divide the spinothalamic tract even higher, namely, in the medulla However, the landmarks for placing the incision in the medulla are indefinite and the results are not uniformly good, also the hazards to life are greater Walker has recently devised a procedure, in which he cuts the tract still higher, namely, in the midbrain You will recall that the anatomy of the pain tract in the midbrain is such that the tract lies superficially on the dorsal surface

One can slip down along the tentorium between the cerebrum and cerebellum and reach this area where, theoretically, the entire pain tract could be cut and produce satisfactory analgesia that would include the entire side of the body and face I believe, for practical purposes, that this operation too is a much more serious one

than is required and its results have not been uniformly good.

There is another procedure which should be mentioned in passing, and that is the introduction of alcohol directly into the subarachnoid space. Alcohol will result in the destruction of nerve fibers and advantageously enough it would appear that pain fibers, touch fibers, and motor fibers are sensitive in that order; that is, pain fibers are affected first and most severely by alcohol. Absolute alcohol can be injected in the subarachnoid space in 1 cc. amounts and, if the patient is in the Trendelenburg position or on one side, alcohol rises to the uppermost level in the sac and can be made to bathe nerve roots of both sides or of one side only, depending on what position the patient is turned. However, this procedure is one that cannot be accurately controlled, and there is some danger of producing loss of bladder or bowel control and even weakness in the lower limbs. Even though these effects may be transitory for a few days or weeks they cannot be taken lightly. Also, some patients will complain of pain resulting from the irritation of the alcohol and occasionally many days ensue before this pain subsides. These complications limit the usefulness of the procedure. Subthecal alcohol injection has its greatest usefulness in cases of visceral pain in the pelvis such as that arising from malignant disease of the bladder, rectum, and uterus. It gives little relief from pain arising from metastasis to the pelvic bones and femur. An ideal use of subthecal alcohol is that in a painful bladder tumor which has previously required cystostomy or ureterostomy. It thus obviates the complication of bladder incontinence.

One of the most satisfactory types of intractable pain to treat is tic douloureux. The cause of this pain is not known. No medical treatment is effective and the pain almost never disappears for more than temporary periods. Alcohol injection of various branches or divisions of the trigeminal nerve gives temporary relief, but the only suitable method for obtaining permanent relief is division of the sensory root of the trigeminal nerve. Often a selective division of the nerve root will preserve sensation in parts of the face unaffected by the pain. The operation can be performed by an extradural approach through the temporal region or by an intradural approach through the posterior fossa.

In a recent series of about 10 cases I have employed an operation in which the descending tract of the trigeminal nerve is divided in the medulla about 1 cm. caudad to the obex. This tract is made up mostly of pain fibers and the advantage of the operation is that other forms of sensation including the corneal reflex are preserved. The disadvantages of the operation are that the risks are greater and there are likely to be variations in the results due to the uncertainty of the local landmarks, making difficult the accurate placement of the incision into the medulla.

There is an interesting problem in the relief of cardiac pain, particularly in those patients who have angina pectoris without advanced heart disease. They are made very miserable and are incapacitated by the pain alone. It is evident in many that if they could get rid of pain they could be useful and happy people. There has been a good deal of confusion with regard to the pathway for pain from the heart, and several kinds of operations have been performed and recommended. The afferent fibers from the heart, regardless of what initial pathways they take, whether through the middle or inferior cardiac nerves or directly through upper thoracic nerves, all join the sympathetic chain sooner or later in the lower cervical and upper thoracic region and then enter the cord by way of the posterior roots, thoracic 1 to 5. If it is desired to interrupt pain pathways from the heart it is therefore possible to do so by a paravertebral block with alcohol in that region or by surgical resection of the upper thoracic sympathetic chain. If the pain from the heart is bilateral the procedure must be done on both sides.

An alternative procedure is posterior rhizotomy, thoracic 1 to 5, which can be performed bilaterally at a single operation and which, I feel, has certain advantages that have not been sufficiently appreciated.

It has been suggested that paravertebral injection is a much safer procedure than rhizotomy, particularly in a patient who has advanced disease of the heart. But that does not always follow because the paravertebral injection of alcohol for whatever purpose carries a certain likelihood of producing pleurisy or other pulmonary complications.

Another disadvantage of alcohol is the possibility of injecting it inadvertently into the subarachnoid space where it can produce a myelitis which may be permanent. It has other hazards. We should note the fact that alcohol injected around any nerve may result in painful neuritis. This replaces the original pain with another which, for a while at least, may be just as severe. Regardless of what technic is used the injection of alcohol at a depth cannot be an absolutely accurate procedure and in my experience 20 to 25 per cent of patients complain of some pain resulting from irritation by the alcohol.

DR. WOLFF: Dr. Ray, there are certain pains that are particularly hard to manage and I would like to ask you about those specifically. How would you deal with intractable herpes? Interruption of what pathways is most useful?

DR. RAY: We have gone along with those who believe that herpes zoster is a disease of the spinal-root ganglia or cranial-root ganglia. If that is correct, the procedure of choice for relief of chronic pain of herpetic origin should be division of nerve roots proximal to the diseased ganglia. As a matter of experience, the division of those roots does not give patients more than about 50 per cent relief of their pain, which suggests that in those who have chronic pain after herpes zoster there is more central involvement than of the spinal or cranial ganglia.

I believe that when the problem is completely investigated we may find that division of the pain tracts higher up, a chordotomy, or, in case of the trigeminal nerve, a tractotomy in the midbrain, will meet the need, but the question is still unanswered.

DR. WOLFF: There is another difficult problem. I refer to a pain called causalgia, a burning pain referred to the extremities after these parts have been injured. How would you manage such a pain? Do you agree with that definition?

DR. RAY: Causalgia is an entity and a disagreeable pain. Its relief, on the whole, has not been very satisfactory by the methods employed, although sympathectomy will sometimes give a brilliant result and good effects have been reported occasionally from repeated paravertebral sympathetic block by procaine. Posterior rhizotomy, curiously enough, may not relieve such pain even though the limb be completely deafferented. A few patients have had cervical chordotomy performed for causalgia in the upper extremities but, I believe, without consistent benefit.

The problem of causalgia brings to mind another—that of the phantom limb. Most of those who have an arm or leg amputated have the sensation of the amputated part still being present. In some the sensation becomes a disagreeable one and a frequent complaint in such patients is that a phantom hand, for example, feels tightly closed, so tight in fact that it hurts. You can perhaps simulate the sensation by clenching your own hand and maintaining it thus. There develops a disagreeable and finally an unbearable sensation.

Occasionally, sympathectomy of the involved extremity before the condition has been permitted to exist for too great a time seems to be beneficial. Multiple posterior rhizotomy for the more intractable cases has almost uniformly failed to give relief and, although experience with chordotomy in such cases is meager, its benefits are probably no better than those from rhizotomy. In one such patient recently I excised the motor and sensory cortical centers for the involved extremity and produced immediate relief of his phantom limb. It is too early to evaluate the late result.

DR. WOLFF: What cortex?

DR. RAY: The motor and sensory cerebral cortex, that is, areas 4 and 6 and the region just behind them which I presumed constituted the sensory cortex representing the affected extremity. In my patient sympathectomy and multiple posterior rhizotomy had failed to abolish the phantom hand and arm. The results following excision of the cerebral cortex suggest that the existence of a phantom limb at least in the more chronic cases is dependent on a central mechanism and not upon peripheral impulses arising in the remaining portion of the limb.

DR. WOLFF: Gastric crisis associated with tabes gives us a great deal of trouble. How do you approach that?

DR. RAY: I believe that tabetic pain can be relieved if the pain tracts are cut high enough, and by that I mean chordotomies that are done high enough to give a level of analgesia which includes the area of pain. The thing that has happened in the past is that the chordotomies have usually been too low, and this has resulted in incomplete relief of pain. We know, for example, that chordotomy which provides a level of analgesia only to the nipples or below may not entirely relieve pain which is located in abdominal or pelvic viscera or perhaps even in the blood vessels of the leg. The cause of the failure may be that the visceral afferents enter the cord higher than the level of analgesia. Therefore, the way to minimize the likelihood of failure is to perform the chordotomy in the cervical portion of the cord. Although the procedure has not been popular I have found that bilateral chordotomy can be done safely through the lower cervical segments without impairment of motor function to the arms. At this level there is no danger of respiratory embarrassment.

DR. WOLFF: Cancer of the head and face may be associated with pain that is very hard to manage. How would you approach that?

DR. RAY: The majority of these problems are the result of cancer about the face, pharynx, and mouth. If the lesion lies in the maxilla or above, the interruption of the fifth nerve alone will usually serve to relieve the pain satisfactorily. However, if the lesion involves the lower jaw, the resulting pain impulses may traverse several difficult pathways. The relief of pain in this area may require the interruption not only of the trigeminal, but also of the glossopharyngeal nerve, and perhaps of the sensory portion of the vagus and the intermediate fibers of the facial as well as the upper cervical nerves. Each case thus presents a problem of its own.

DR. WOLFF: Sometimes all those are cut and

still the patients have the pain. What do you do then?

DR. RAY: I don't know. Does anybody know of any instance in which all these nerves have been cut, including the seventh?

DR. WOLFF: Dr. Grant has cut the seventh along with others and the pain has continued.

DR. RAY: My only answer is that there must be other pathways for the pain, pathways we do not know about, but on the whole our experience with nerve sections for relief of pain of the head and neck has been fairly satisfactory.

DR. WOLFF: Would you do a midbrain section?

DR. RAY: Loss of sensation in the head with the section in this region has not been as complete as would be expected. I have reviewed Dr. Walker's cases and I believe he has not had complete analgesia of the head in any of them.

Dr. Hausman has expressed the opinion that we do not employ excision of the sensory cortex enough.

He feels that even though we recognize the fact that pain has a bilateral representation in the brain, the possibility still remains that the excision of the cortex on one side might be quite enough to provide comfort to the patient.

DR. WOLFF: Do you look upon intermittent claudication as a reason for deafferentation or any other procedure?

DR. RAY: This rarely constituted a problem in intractable pain. Sympathectomy is useful in some cases in improving blood supply to the legs and counteracting vasospasm.

DR. WOLFF: It is not comparable to the intractable pain of disturbances in coronary circulation?

DR. RAY: I think intermittent claudication is a condition in which one directs the treatment to the vascular system. If the vessels are still elastic, interruption of the sympathetics may be useful, but interruption of the pain pathways would rarely be called for. I have not seen a case in which that was true.

DR. WOLFF: Perianal pruritis seems to give considerable difficulty.

DR. RAY: I think that should be dealt with locally. A low bilateral chordotomy might be employed but even in the thoracic region it leaves about 15 or 20 per cent of the patients with some impairment in bladder function, and I believe most patients who have pruritis ani are the kind of patients who would not tolerate much bladder disturbance.

DR. WOLFF: It is interesting that all male patients who have had chordotomies are left without the ability to ejaculate. They are capable of erections but ejaculation seems to be absent. Fortunately, most persons who require bilateral chordotomy do not live long enough to make this a major defect, but what do you do about that sort of thing?

DR. RAY: I think you have to consider the drawbacks of any operation for relief of pain, and I have tried to indicate that none was ideal. Certainly I would hesitate to do a bilateral chordotomy on a patient who might expect a long life.

I believe the reason men lose the ejaculatory function is probably because the chordotomy interrupts the autonomic pathways at the same time. We know, for example, that cervical chordotomy almost always produces Horner's syndrome to some degree, which means that the sympathetic pathway travels very near to the region we have to cut and I think the same applies to the autonomic pathway for the reproductive system.

DR. WOLFF: Would there be an efferent defect too?

DR. RAY: There could be. In doing the splanchnicotomies for hypertension in males we usually avoid cutting the first and second lumbar sympathetics on both sides, otherwise they lose their ability to ejaculate.

DR. WOLFF: That is a mixed nerve?

DR. RAY: Yes, that is a mixed nerve.

DR. WOLFF: What do you think about an operation for migraine headache?

DR. RAY: We have operated on a few such people, Dr. Wolff.

DR. WOLFF: It illustrates a principle which you did not mention. I thought you might discuss that.

DR. RAY: We have interrupted the temporal and the middle meningeal arteries in those patients in whom we felt the degree of pain justified the procedure. At the time the artery is resected or divided the visceral afferent fibers that lie in the vessel wall or around the wall in its adventitia are interrupted. There is no way I know of to prevent regeneration even though one resects quite a segment of the vessel, and I believe that such an operation would be unjustifiable on that ground as a routine procedure.

DR. WOLFF: Four to six months seems to be the usual time for freedom from pain in such patients.

Would anybody else like to ask some questions?

INTERN: How about Raynaud's syndrome? What do you do for that?

DR. RAY: That again is a disease which we attempt to relieve by sympathectomy. In other words, we try to treat the vasospasm which causes pain, and not the pain itself, by interruption of the visceral afferent fibers. I would like to be sure you understand the distinction between conditions that we attempt to improve by one method or another, and conditions in which

all such procedures fail, forcing us to fall back on the interruption of the pain tract

INTERN The pain of angina pectoris is some times called an alarm or defense mechanism and there have been arguments saying that if you eliminate this the patient may overexert and drop dead

DR RAY Pain is only one part of the warning that the patient has, and we have found that if pain is relieved such patients still get an unusual sensation which serves as a warning It consists of a feeling of tightness of the throat, a full feeling which is not pain These patients are not, therefore, without their signals

In all fairness I think I should state that in a few such patients, even through we have interrupted what we believe are the pain pathways from the heart, the extreme state of coronary occlusion has been accompanied by some pain We do not know the pathway concerned, but that has no particular bearing on the fact that we can relieve the usual type of angina by operation

DR WOLFF It is sometimes said that deafferenting the heart of such patients causes them to live longer Is there any reason to believe that that is true?

DR RAY I feel there is a theoretic reason Dr Wolff, but it has not been substantiated as far as I am aware

STUDENT When you relieve the pain by cutting the sensory nerve I presume you also get degeneration of reflexes which we suspect control the nutrition of the skin Would that delay healing of an ulcer?

DR RAY No, the nutrition to the skin is not impaired by interruption of peripheral nerves Actually, nutrition may be improved, since one of the desirable effects of the interruption of the peripheral nerves for a peripheral ulcer is that it hastens healing by the resulting vasodilatation From this standpoint it is not a detriment but an advantage

DR HARRY GOLD Would we be correct in concluding that you recommend dorsal rhizotomy in preference to alcohol block for cardiac pain? That would be opposed to the view taken by Dr James White

DR RAY Yes I think too often angina pectoris turns out to be bilateral and, therefore, the injection of alcohol on one side does not relieve the pain, and the bilateral injection of alcohol carries double the hazard The alcohol neuritis which occurs in some patients is difficult to deal with White has reported 3 per cent mortality with paravertebral injections

DR GOLD With the rhizotomy, what is the mortality?

DR RAY I don't know what it is I think the collected cases of rhizotomy for angina pectoris would comprise less than 20, and I do not think we can compile a true mortality percentage with that number

DR GOLD I believe that the lack of success with alcohol is often ascribed to inaccurate technic

DR RAY But there are no suggestions as to how to perfect it After all, it is not easy to put a needle in so deep and have the point lie in correct relation to a nerve 3 mm across especially since there may be anomalies At best the procedure is still a blind one

DR WOLFF Dr McLean, is there any way of dealing with the pain of glaucoma by deafferenting an eye?

DR JOHN MCLEAN Yes, but that is usually done more simply and more safely by alcohol injection within the muscle cone of the orbit That is only done on blind eyes

DR WOLFF Are there any other conditions of intractable pain in the eye which you would care to discuss in terms of surgical approach or any other approach?

DR MCLEAN Practically all intractable ocular pain occurs in eyes that are hopelessly blind and that pain is usually completely cured by the removal of the globe There have been operations devised for cutting the sensory fibers behind the globe in the orbit but they are rather extensive and there is practically no occasion for their use

DR MCKEEN CATTELL I would like to ask Dr Ray to what extent the results from the use of procaine as a local anesthetic are of value from the standpoint of giving a preview of the relief to be obtained by other procedures

DR RAY I believe the procedure has definite limitations One of the things which is wrong with it is that when you inject 2 cc or 3 cc of procaine, which is the same amount of alcohol which you may propose to use later, it will not produce the same kind of sensory impairment that the alcohol will If you put in more procaine, 5 to 20 cc , which is usually what is done, it has a much wider effect than the 2 or 3 cc of alcohol is going to have when you finally put that in

In other words, I don't believe paravertebral procaine is always a reliable guide to what you may get from the injection of a small amount of alcohol

I feel, however, that the disadvantages must not be stressed too strongly because there are places in which one may want to employ procaine beforehand The other disadvantage, and this is perhaps more important, is with regard to the time the procaine may last The period may not be sufficient to allow for the evaluation of the relief from the pain which the patient may get

DR. WOLFF: Have you found procaine helpful in any states?

DR. RAY: It has been claimed that procaine and benzyl alcohol in oil has a more prolonged effect, but still it does not last long enough for really intractable pain. Larger doses are also likely to cause a slough of the tissues into which they are injected.

Summary

DR. GOLD: The control of the symptom, pain, by surgical means was the chief subject of the discussion in the conference today. Cardiac pain (angina pectoris), intermittent claudication, Raynaud's disease, and severe headaches of hypertension are examples of conditions in which relief of pain is achieved by severing nerve supply.

However, in these the relief of pain is indirect. The objective in most of these is to remove vasoconstriction and thereby relieve pain.

The discussion centered on the problem of blocking pathways carrying pain impulses to the brain. Candidates for these measures are, for the most part, incurable conditions in which all other means for the control of pain have failed. Blocking pathways for pain impulses by surgical means involves mortality hazards, frequent therapeutic failures, and accessory disabilities resulting from the fact that the fibers conveying pain sensation usually lie in close proximity to those mediating other functions, such as temperature, deep muscle or position sense, motor fibers, eye reflexes, sympathetic controls, bladder and bowel control, and others.

Many types of procedures have been devised, such as sectioning of a peripheral nerve to a localized painful area, severing the sensory roots (dorsal rhizotomy), section of the spinothalamic tract (anterolateral cord incisions), and other special tractotomies. Attempts to block pain pathways in the central nervous system have been made by incisions all the way from the thoracic to the high cervical region, medulla, midbrain, and in the cortex itself.

It is noteworthy that the level of the cord section and analgesia are not the same, and that the analgesia may start three to five segments below the level of the incision.

Some of the special indications which were considered for surgical interruption of pathways are intractable pain in the head and neck, upper chest, and upper extremities, abdominal and pelvic pain, pain in the lower extremities, cardiac pain, herpes zoster, gastric crises, perianal pruritis, and tic douloureux. The merits and dangers of paravertebral and subthecal alcohol were contrasted with those of surgical measures.

Emphasis was placed on the desirability of applying these measures to intractable pain before the patient's health has deteriorated so as to make them poor surgical risks and before they have developed morphine addiction, which is frequently incurable and adds to the patient's burdens.

Surgical skill, experience, and judgment in the proper selection of the type and site of operation are decisive factors in the successful relief of intractable pain.

VIRUS CAN INDUCE PRIMARY ATYPICAL PNEUMONIA

Investigations by the Army Medical Department's Commission on Acute Respiratory Diseases, made with forty-two conscientious objectors, all of whom had volunteered for the experiment, produced results demonstrating that bacteria-free filtrates, presumably containing a virus, can induce primary atypical pneumonia in man, the Commission reports in the *Journal* of the American Medical Association for January 20.

The report explains that studies on the cause of primary atypical pneumonia which have been reported recently in medical literature have shown that bacteria, rickettsias, fungi, and viruses, particularly those of the psittacosis or parrot-fever group, may produce the syndrome of atypical pneumonia.

No causal relationship to these known agents, however, has been demonstrated in the majority of cases, it says, "and the assumption has been made that an unknown virus is the causative factor."

The inoculum given the forty-two volunteers consisted of throat washings and sputum collected from 6 cases of atypical pneumonia produced in a previous experiment by inoculation of untreated throat washings and sputums from cases in a military hospital. Each of the experimentally produced illnesses had the characteristics of primary atypical pneumonia.

One third of the inoculum was filtered, to remove bacteria; another third was autoclaved at 15 pounds pressure for ten minutes, which apparently killed all disease-producing organisms, and the remainder was untreated.

Three of the 12 patients receiving the filtered material and 3 of the 12 receiving the untreated inoculum developed characteristic symptoms, signs, and x-ray evidence of primary pneumonia. None of the 18 receiving the autoclaved material was similarly affected.

Another finding of interest was the fact that in the 3 patients receiving the filtered material the onset of the disease occurred on the twelfth, thirteenth, and fourteenth days, respectively, after inoculation. The onset in 2 patients receiving untreated material was on the seventh day, and in the third patient it occurred on the eighth day after inoculation.

The symptoms and signs observed at onset and during the course of the disease did not differ materially in the two groups. In general, illnesses were milder in patients in the "filtered" group.

EXTRASYSTOLIC AURICULAR TACHYCARDIA—A REPORT OF TWO CASES

EMANUEL GOLDBERGER, M.D., and SIDNEY P. SCHWARTZ, M.D., New York City

(From the Medical Division, Montefiore Hospital, New York, Dr. Louis Leiter, Chief; and the Department of Medicine, Lincoln Hospital, New York, Dr. Leander Shearer, Director)

ALTHOUGH tachycardia of auricular origin in the form of the classic paroxysmal auricular tachycardia is well known, it is not generally recognized that runs of auricular extrasystoles may occur sufficiently frequently not only to cause a tachycardia which may be easily mistaken for auricular fibrillation, but may be the cause of severe circulatory embarrassment. Since the original description of the condition by Lewis[1] there have been but scattered reports in the literature.[2–6] This extrasystolic auricular tachycardia is, however, by no means infrequent.* Clinically the cases may be divided into two groups:

1. Cases in which paroxysms of more or less regular tachycardia alternate with slower periods of sinus rhythm and isolated auricular extrasystoles.

2. Cases in which the auricular extrasystoles are irregularly spaced so that clinically the picture is that of auricular fibrillation.

This classification, however, is not rigid, because the same individual may show both types at different times.

These two types are illustrated in the following two cases chosen from our files.

Case Reports

Case 1.—H. C., a very nervous 54-year-old white woman, entered the hospital on February 11, 1943, complaining of pain in the right side of the chest, fever, and blood [illegible] sputum of several days' duration. [illegible] of the c[illegible] secondar[illegible] having [illegible] three or four years, the attacks often being precipitated when she lay on her left side. They would disappear spontaneously after a few minutes.

Examination of the heart revealed a regular sinus rhythm; blood pressure 110/74; heart sounds of good [illegible] electrocardiogram showed [illegible] on [illegible] ed [illegible] -k- [illegible] nic [illegible] re- vealed a sinus rhythm. Because of her fever, the patient was placed on sulfathiazole therapy with prompt subsidence of her febrile state.

On February 20, at 2 A.M., she had a sudden attack of her "heart knocking" which lasted two minutes. The intern described it as a "regular tachycardia with a rate of 125 per minute." Electrocardiograms taken later in the morning revealed bouts of tachycardia caused by multiple auricular extrasystoles, for which she was given 9 grains of digitalis powder by mouth on February 21, and 9 grains on February 22. On February 22 one of us (E. G.) saw the patient during an attack which consisted of "paroxysms of five and six auricular premature contractions alternating with sinus rhythm." Quinidine was ordered, 30 grains a day to be given after a test dose of 3 grains to determine if the patient had an idiosyncrasy to the drug.

The next few days showed a marked improvement in her condition, with only an occasional bout of extrasystoles. However, on February 26, she was again seen during an attack (by E. G.). She had broken out into a cold sweat and complained of faintness and heart knocking. On auscultation the heart appeared to be beating at a rate of about 200, the rhythm consisting of long runs of tachycardia separated by irregularly spaced slower intervals lasting a second or so. Since the patient was in obvious discomfort, carotid sinus stimulation was immediately tried. Pressure over the left sinus was ineffectual, but pressure over the right carotid sinus for three seconds produced an immediate cessation of the paroxysms of tachycardia. The slow rhythm which resulted was not completely regular but was occasionally interrupted by an isolated premature contraction. Quinidine was increased to 36 grains a day. The patient was well until March 1, 1943, when she again developed attacks of tachycardia alternating with isolated auricular extrasystoles. [illegible] *the rhythm immedi-* [illegible] arch 3, the quinidine [illegible] lay; this resulted in [illegible] con[illegible] [illegible] rch 9, it [illegible] , to 15 [illegible] nd she was placed on a maintenance dose of 36 grains [illegible], when she was [illegible]. She had dis- [illegible] while at home. [illegible] results, but with bed rest she responded fairly well, and was discharged in two weeks with only an occasional extrasystole.

She remained well until January, 1944, when, [illegible]

Occasionally an auricular extrasystole is blocked (x), resulting in momentary slowing of the heart rate with marked irregularity of the rhythm.

In Fig. 1B, representing lead II, which was next taken by the technician, a normal sinus rhythm is present. As the technician was prepared to take the next lead, she noticed the heart rate suddenly increase and continued to record lead II (Fig. 1C.)

Work done in part under the Martha M. Hall Foundation Fund for research in cardiovascular disease, in memory of William Henry Hall.

* Recently, at Lincoln Hospital, we have been seeing a case almost every month.

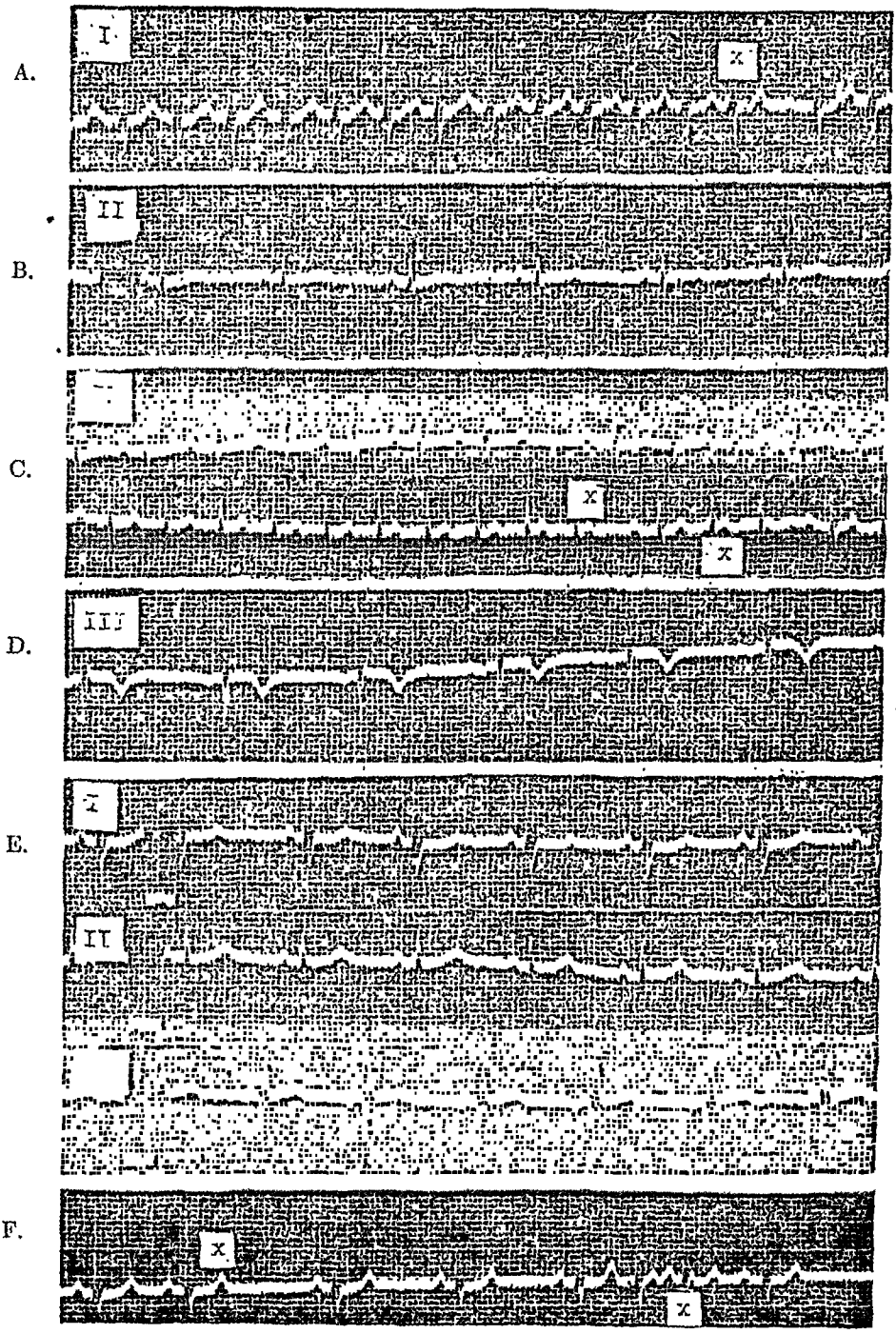


FIG. 1. Case 1. February 21, 1943. The strips are arranged in the order in which they were taken.

A. Lead I. Paroxysmal tachycardia, caused by auricular extrasystoles, is present. The auricles are beating at a rate varying from 150 to 165 a minute, with regular ventricular responses at first. Occasionally an auricular extrasystole is blocked (x), resulting in marked irregularity of the rhythm and slowing of the ventricular rate.

B. Lead II, taken j[illegible]rhm.

C. (Continuous str[illegible] increase of the heart rate from 120 to 165 a minute with a [illegible]m 0.16 to 0.24 seconds, until, finally, an auricular extrasysto[illegible]ion).

D. Lead III. Sinus rhythm has returned.

E. *February 25, 1943. Regular sinus rhythm resulting from quinidine therapy.*

F. March 1, 1943. Lead I. The sinus rhythm is interrupted by isolated auricular extrasystoles, some of which are blocked and do not result in ventricular contraction.

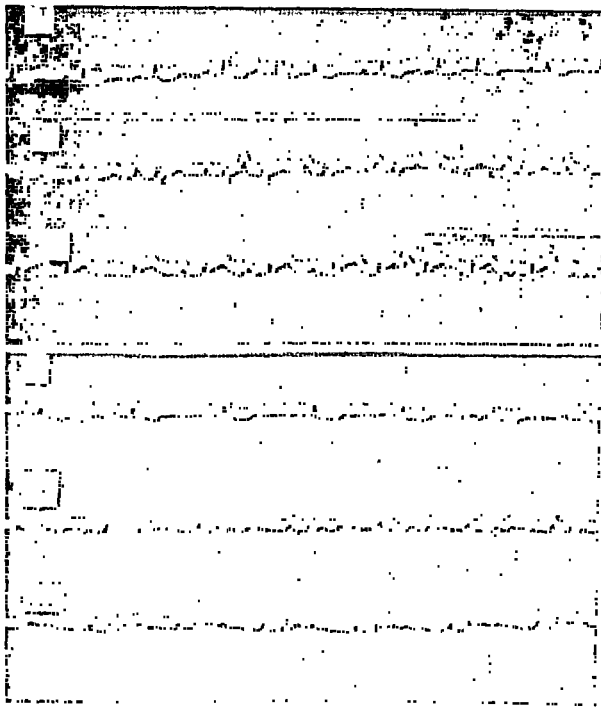


FIG. 2. Case 2.

A. December 2, 1942. The patient had been digitalized. Numerous auricular extrasystoles interrupt the basic sinus rhythm, resulting in marked irregularity of the heart rate
B. December 12, 1942 Regular sinus rhythm is present. The patient was receiving quinidine, 30 grains a day.

It will be noticed that there is a gradual increase of the heart rate from 120 to 165 with a corresponding increase of the p-r interval from 0.16 to 0 24 second, until finally an auricular extrasystole is blocked (x) This is known as the Wenckebach phenomenon Lead III, taken right after this, has normal rhythm.

The effect of quinidine in producing a sinus rhythm is shown in Fig. 1E. Fig 1F illustrates how isolated and multiple auricular extrasystoles occur at irregularly spaced intervals.

Case 2.—H. K., a 55-year-old white man, was admitted to the hospital on November 29, 1942, complaining of dyspnea and orthopnea. His past history disclosed a chancre in 1916 and a "stroke" three years prior to admission in which aphasia and left [illegible] sure was found to be [illegible] sent in the lungs; the apex impulse was felt in the seventh intercostal space, 4 cm to the left of the midclavicular line. A clinical diagnosis of auricular fibrillation with an apical rate of 180 was made. There was a diastolic blow at the aortic area and a systolic murmur at the apex.

The next day an acute attack of respiratory distress occurred, which was relieved by intravenous aminophyllin and subcutaneous morphine. Digitalization was started, but the patient did not

improve. The heart rate continued elevated, and he was somewhat noisy and disoriented. In view of the fact that the electrocardiogram showed an extrasystolic auricular tachycardia (Fig. 2A), quinidine therapy was instituted, and he received 30 grains a day. Within two days the rhythm had returned to normal (Fig. 2B), and the quinine was cut to 9 grains a day. In spite of the cardiac improvement, his course was downhill. By December 13, he lapsed into coma. At this time there were no signs of cardiac decompensation and his rhythm was normal. He died the following day. There was no autopsy.

Discussion

Diagnosis.—There may be no subjective evidence of an arrhythmia in these cases; often palpitation is common, and during a long paroxysm, all the characteristics of a Stokes-Adams syndrome, including syncope, may be present. (This occurred in one of our other cases in which the extrasystolic auricular tachycardia was of type 1.)

In the first type, in which paroxysms of more or less regular tachycardia alternate with periods of sinus rhythm and isolated extrasystoles, the diagnosis may be suspected on this basis, although there are forms of extrasystolic ventricular tachycardia which can give the same clinical picture.[7] If the case be of the second type, in which irregularly grouped auricular extrasystoles are the cause of the tachycardia, differentiation from auricular fibrillation on clinical grounds may be impossible, and the diagnosis must be made with the electrocardiogram.

Therapy.—Mild attacks, as has been shown, need no medication and disappear spontaneously. When the attacks are severe and incapacitating, often heroic measures are needed. Although digitalis has been recommended by some,[3] we have found quinidine to be the drug of choice, although even with this it may be impossible to eradicate completely all the auricular extrasystoles, and cases have been reported which are refractory to quinidine.[4,5] After a test dose of 3 grains to see whether there is any idiosyncrasy to quinidine (tinnitus, etc.) at least 30 grains should be given in divided doses day and night. For the acute paroxysm of tachycardia, carotid sinus pressure or vagal stimulation may be of value.

Prognosis.—Although both these patients had evidence of enlargement of the heart (as have most of our other cases of extrasystolic auricular tachycardia) the prognosis is not necessarily serious. In fact, one of our patients (not reported here) is living and well ten years after her original attack.

Summary

1. Auricular extrasystoles may occur with sufficient frequency to cause an irregular tachycardia which clinically is often indistinguishable from auricular fibrillation.

2. Another type of tachycardia caused by auricular extrasystoles is that in which paroxysms of more or less regular tachycardia alternate with slower periods of sinus rhythm and isolated auricular extrasystoles.

3. The treatment of choice in both types, which may occur in the same individual at different times, is quinidine therapy.

4. The condition is often, but not necessarily, associated with some evidence of organic heart disease.

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1814 Grand Concourse, Bronx
1185 Park Ave., New York City

EXTERNAL SIGN IN RETROPERITONEAL RUPTURE OF THE ABDOMINAL AORTA

GRISWOLD D. NAMMACK, M.D., AND SYDNEY HIRSCH, M.D., Far Rockaway, New York

(From the Surgical Service of St. Joseph's Hospital)

BECAUSE of the scarcity of recorded cases of retroperitoneal apoplexy, we consider the following one worthy of reporting. The diagnosis of an abdominal aneurysm is difficult to make antemortem. The rupture of such an aneurysm, especially if it is a slowly bleeding one, is difficult to recognize, so that the presence of the sign described below should immediately help to establish the diagnosis.

Case Report

No. 73020; Mr. C. A. V. was admitted October 14, 1943, at 10:45 A.M. He died October 15, 1943, at 4:30 P.M. The patient was a 76-year-old man with a history of left lower abdominal pain radiating to the left scrotal region for the past twenty-four hours. This was associated with some nausea but no vomiting. There was a good bowel movement twenty-four hours before admission.

His previous history included the presence of syphilis many years before. This was very inadequately treated because of the patient's lack of cooperation. He also had a bilateral inguinal hernia of many years' duration. There had been no other illnesses or operations except for chronic cardiovalvular disease that remained fully compensated.

Physical Examination.—The patient was an acutely ill elderly man. His pupils were equal and regular but fixed, and did not react to light or accommodation. The tongue was furred; the teeth

were poor Heart sounds were distant and irregular, blood pressure was 160/90 Liver and spleen were slightly palpable there was no costovertebral tenderness No edema was present in the extremities Reflexes were sluggish Rectal examination was negative Easily reducible right and left inguinal hernias were present

Local Examination—Moderate abdominal distention was present, there was a tender, pulsating mass extending from the umbilicus to the outer border of the left rectus The mass was about the size of an orange, it pulsated mildly synchronously with the heart and the pulsations were only slightly expansile in character No thrill was palpable compression of the abdominal aorta proximally made no difference in the pulsation or in the size of the tumor No bruit was heard The femoral pulse on the left side was not altered in comparison with the right There was no edema of the left leg

The External Sign—There was considerable ecchymosis of the left inguinal region the left lower quadrant the upper portion of the left upper thigh and the left side of the scrotum

The patient's condition rapidly deteriorated and he died about thirty hours after admission

[illegible] noglobin was 49 9 per [illegible] 000 white blood cells, 91 per cent, lymphocytes, 1 per cent, immature granulocytes, 8 per cent blood nonprotein nitrogen, 69 mg per 100 cc creatinin, 2 5 mg per 100 cc

X-Ray of Abdomen—X-rays showed marked distention of the proximal colon from the cecum to the splenic flexure, and also of the distal coils of the ileum No gas was seen in the distal colon from the splenic flexure to the rectum Findings suggest an obstructive lesion somewhere in the distal colon

Admission Diagnosis—Rupture of an aneurysm of the abdominal aorta

Postmortem Examination—The essential findings were

1 Peritoneal cavity—ecchymosis of mesenteric-bowel junction throughout

2 Extensive ecchymosis of the left side of the abdominal cavity extending from the left perinephric region down the retroperitoneal tissues to the left scrotum

3 Thoracic aorta—widened, marked intimal atherosclerosis with large areas of ulceration

4 Abdominal aorta—marked sclerosis with ulceration throughout, large saccular aneurysm between abdominal vessels and bifurcation, about 10 mm in diameter, with adherent blood clot about 60 by 100 by 80 mm Extending from here there is a massive retroperitoneal hemorrhage extending along the spermatic cord into the left side of the scrotum

Summary

The presence of iliac, inguinal, and scrotal ecchymosis is here presented as an external sign of a retroperitoneal rupture of an aneurysm of the abdominal aorta

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PENICILLIN REPORTED EFFECTIVE FOR RAT-BITE FEVER

[illegible]

February 3

Although rat-bite fever is a relatively rare disease of man, there is one form for which no satisfactory treatment agent previously has been available, the investigators point out This is the form caused by the disease organism Streptobacillus moniliformis

One of the other forms of rat bite fever is caused by the organism Spirillum minus, which responds well to arsenical treatment

The three investigators say a review of the medical literature reveals only 17 cases of rat-bite fever due to S moniliformis in th[illegible] diagnosis was verified

In their paper they

Penicillin was used in the treatment of these 3 patients, it being the first time the drug had been used for this disease They say that the response to the penicillin treatment was prompt and permanent in 2 cases but in the third a relapse occurred after the administration of an inadequate amount of penicillin

"A comparison of the course of our cases," they say, "with those previously reported gives the impression that penicillin is an effective chemotherapeutic agent which shortens decidedly the course of the disease

"In the future, treatment with penicillin is recommended in the therapy of rat-bite and Haverhill fevers"

Haverhill fever is caused by the same organism as rat-bite fever but without the bite of the rat or another animal

The three investigators explain that there is some tendency in rat-bite fever for the disease to clear up spontaneously after a varying number of relapses Of the 17 cases reported in medical literature up to and including 1943, there were 2 deaths Three of the patients were left with persistent arthritis lasting fifty-three days in one case, eight months in another, and for more than two years in the third In the United States the disease has now been reported in twenty-eight states and the District of Columbia, but the incidence has been greatest in Ohio, Pennsylvania, New York, and Illinois The [illegible]

Additional Annual Reports

To the 1945 House of Delegates

Medical Society of the State of New York

Supplementary Report of the Council—Part IX: Legislation

To the House of Delegates; Gentlemen:

The Council Committee on Legislation respectfully submits the following supplementary report.

The New York State Legislature was in session from January 3, 1945, to March 24, 1945. During that period of time there were one thousand, nine hundred and eighty-one bills introduced in the Senate and two thousand, three hundred and fifty-six in the Assembly. Besides the above, there were many bills amended and many resolutions introduced.

The Legislative Committee was interested in sixty-nine of the bills introduced in the Senate, copies of which were sent to the chairmen of the legislative committees of the county medical societies. Your Legislative Committee also followed twenty-two other bills in the Senate and reported their progress to those interested in these bills. There were eighty-three of the Assembly bills sent out and twenty-nine whose progress we watched and reported. It is to be realized, of course, that a number of the Assembly bills which we followed were concurrent with bills in the Senate, so the total number of individual bills which we followed would not be as large as would appear on first glancing at these figures. It is to be remembered, however, that a bill that is concurrent with a bill in the other house must be followed in the same manner as individual bills.

A review of these bills shows that seventy-five were defeated in committee or not reported out by the end of the session; two were lost on vote in the Assembly, one of which was the bill introduced by Mr. Brees that would license the practice of chiropractic; forty-eight bills passed both houses and were sent to the Governor. Of the bills sent to the Governor, thirty-eight were signed and became laws; ten were vetoed. Those who have received the bulletins have had information on many of these bills as they progressed and are familiar with the action on the individual bills. The final group of thirty-day bills is now being assembled in a bulletin which will be in the hands of those who received the bulletins in the near future. Among the bills that caused us a great deal of concern this year were the bills that would have licensed the practice of chiropractic, the DiCostanzo bill making vivisection of dogs illegal, and the two bills that would have lowered the requirements for admission to the practice of medicine.

There was every indication at the beginning of the session that a bill to license chiropractors would be introduced in both the Assembly and the Senate at an early date and, if voted on, would have a good chance of passing both houses. The sponsors of the chiropractic bill were given a promise last year that these bills would be introduced early and would come to a vote. It was because of this situation that your Legislative Committee was so apprehensive about these bills becoming a law that they urged all interested in them to make a representation to their legislators. It would appear that it was only because of the energetic educational campaign along these lines that the chiropractic bill was defeated on the floor of the Assembly by a vote of 96 to 43. In order to emphasize the dangers of these bills, it was felt necessary that we ask for a public hearing on them. It would appear that this public hearing had the effect of calling to the attention of some of the legislators, at least, the danger of licensure for the practice of chiropractic by those who had not had adequate training of sufficiently high standards to be a proper protection to the public. Out of this resulted the proposal of amendments to the bill which were suggested independently from any suggestion from the Medical Society. It appeared at the time that had these proposed amendments been accepted the bill for the licensure of chiropractors would have had an excellent chance of passing the Assembly. The proposed amendments apparently were not acceptable to those representing the chiropractors and were defeated. The defeat of these proposed amendments seemed to assure the defeat of the chiropractic bill in the Assembly which resulted in the vote when taken as given above. With this decided defeat in the Assembly, the Senate bill was amended along the lines of the third amendment suggested in the Assembly, and then recommitted to the Committee on Public Education. It was not reported out from that committee at the end of the session. It is not thought that this will end the efforts of the chiropractors to obtain licensure in New York State. It will mean that it will be necessary for us to be prepared to oppose legislation in the future that would license chiropractors or any cult in which the standards of education and experience are not sufficiently high to be a proper protection to the public. It is understood, of course, that we would not oppose any school of practice whose graduates have received adequate scientific training of sufficiently high standards that they would not be a danger to the public if permitted to practice.

The DiCostanzo bill which was introduced in the Senate would have prohibited scientific experiments on living dogs for medical purposes now permitted by authority of faculty of a regularly incorporated college or university. This bill was very quietly introduced, lay dormant for quite a period of time, starred on the calendar, indicating that it had been laid aside, and then was suddenly called to life in the Senate, was voted on, and passed with only nine opposing votes. At the same time there appeared quite a campaign in the Hearst newspapers and the legislators of both houses received a considerable number of communications urging that they pass this bill. The bill was sponsored by the Hearst newspapers, as was mentioned in certain articles in those papers at a later date. Because of the organized campaign to pass this bill, it required, as you recall, considerable activity on the part of those who were opposed to this legislation. It is believed that proper scientific experiments on dogs are necessary for the advancement of medical knowledge

and it would be a great handicap to such advancement in the field of medicine, public health, and surgery should this be prohibited. Many organizations interested in keeping up the advancement of knowledge in the field of medicine, public health, and surgery opposed the passage of this legislation

The bill was not reported out of committee in the Assembly and did not come to a vote in that house.

There was one bill introduced in the Senate and two in the Assembly that would have set aside the requirements of four courses of eight months each in registered medical schools of this country and graduation from a registered medical school for admission to the medical licensing examination of the

These bills were introduced to provide for licensure for certain individuals who had attended and graduated from unrecognized medical schools It was distinctly class legislation or legislation favorable for a very small group of persons at the expense and to the danger of the public. These bills were introduced under the guise of acute shortage of physicians during the present war emergency The two Assembly bills passed the Assembly with-

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amination not only to a few recent graduates of unrecognized schools but to graduates of all extinct medical schools, diploma mills, whose standing had been so low that their graduates had been excluded from licensure in New York State as not meeting the requirements of the Education Law for admission to the practice of medicine in the State. It is to be realized that these standards are the minimum standards that are considered to be adequate protection to the public. It is also to be realized that an extremely high percentage of the candidates in the New York medical licensing examination greatly exceed the minimum requirements set by law, as these minimum requirements are not as extensive as a vast majority of the medical students desire in their preparation for their practice of medicine. On the passage of these bills in both houses strong representation was made by those interested in the protection of the public along these lines to the Governor, requesting that he veto these bills. The Department of Education, the Depart-

these bills No doubt you saw in your paper on April 22 that the Governor did veto these bills It is thought that it would have been nothing short of a tragedy had they become a law At the time of his disapproval of these bills the Governor issued the following memorandum

the licensing of persons to practice medicine and

Number 2197,

'An act to amend

the education law, in relation to admission to examination for practice of medicine'

"*Not approved.*

"Each of these bills would grant permission to the graduates of certain unapproved medical schools to take licensing examinations in the State of New York. One bill extends this privilege merely for one year, the other would do it permanently.

"The Department of Education, which is charged with responsibility for medical educational standards, has approved a large number of schools and has declared that certain others are substandard These bills would overrule the chosen agent of the people of the State, the Department of Education, and make admissible to practice medicine, men whom the Department declares may not be trusted with that great privilege and responsibility.

"The lives and health of the people of the State are a sacred charge They cannot and must not be exposed to the danger of bad medical treatment The Department of Education certifies that such would be the result of these bills and I am compelled, therefore, to disapprove them

"The bills are disapproved

"(Signed) THOMAS E DEWEY"

A bill that was introduced at the request of the

professions may be heard by three persons, one of whom may be a member of Regents, to be designated by the Regents or Chancellor of the University; hearings shall be upon record before Grievance Committee or Board of Examiners of professions for which there is no Grievance Committee, Regents' committee shall report to Regents for final decision; $4,000 is appropriated for payment of

Regents of the extreme amount of time and work required in reviewing the proceedings of the Grievance Committees of the various professions in disciplinary cases in those professions and the hearings necessary on these proceedings It has been customary for at least three members of the Board of Regents to sit as a subcommittee for these hearings and those members so sitting were expected to cover the testimony and evidence presented at the previous hearing of the Grievance Committee on each case The work being done by the many Grievance Committees, and especially in medicine, had grown to the point that it was extremely time-consuming for the members of the subcommittee of the Board of Regents in attempting to do this work conscientiously. It was thought that a more permanent three-man committee, which could devote more time to this work, would be more efficient and would be a great relief to the Board of Regents This arrangement will not change the disciplinary procedures of the Medical Grievance Committee, nor will it change such procedures in the Board of Regents, with the exception that this permanent three-man committee will hold the

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at other times than during the meeting of the Board of Regents Recommendations of this committee will be made to the Board of Regents and the final action will be taken by the Board of Regents as heretofore. With this change having been made and the relief given to the Board of Regents, there has been no further request for a hearing

ficer and no bill was introduced this year of this nature. Up to the date of this report it is understood that the Board of Regents are working on the appointments to this committee of three persons but such appointments have not been made. The change was apparently necessary and the results will be watched with interest. It is thought that it will be an advantage to all concerned and will enable a more expeditious handling of disciplinary matters.

A bill was also passed this year and became Chapter 417 of the Laws of 1945. This bill amended the Education Law in relation to the members of the Board of Regents and provided that no person shall serve as Regent after the first day of April next succeeding his seventieth birthday, provided, however, that the term of any person serving as Regent on April 2, 1945 shall not be shortened by reason of the provisions of this paragraph. Your Legislative Committee and the chairmen of the legislative committees of the county medical societies went on record as being opposed to this legislation. Your opposition was made known to the legislators. This law will not affect the term of any of the Board of Regents that are now in office with the exception of those who come up for reappointment by the Legislature after this year. It would appear that any Regent who is appointed by the Legislature from now on may not serve as a Regent after the first day of April next succeeding his seventieth birthday. It was thought that you would be interested to know that this amendment to the law has been made although you expressed your disapproval at the time it was being considered.

There were two bills introduced this year, one of which would have amended the Workmen's Compensation Law; the other would have amended the Education Law, in regard to the practice of certain specialties in hospitals. When the change was made in the law last year, making it illegal for the splitting of fees or taking credit or gratuity in connection with medical service, it was found that this change in the law made it necessary to make changes in many hospitals in connection with the service in x-ray, pathology, [illegible]. These bills provided that the pro[illegible] physicians in workmen's compensation or for the annulment or suspension of medical license for fee splitting or for taking credit or gratuity in connection with medical service, including x-ray examinations, etc., shall not apply to compensation paid by a legally incorporated nonprofit hospital to a physician giving service in a hospital as radiologist, pathologist, anesthetist, or physiotherapist. Both of these bills passed both houses and were sent to the Governor. Your Legislative Committee first went on record as being opposed to these bills and your opposition was indicated. Later a meeting between members of the Medical Society, the Hospital Association, and persons representing pathologists and radiologists agreed on amendments to these bills that would be considered satisfactory. Unfortunately, the agreed amendments were arrived at too late to be made at the past legislative session. The bills that were introduced were passed unamended. The Governor vetoed both of these bills without issuing any comment. It is understood that some change should be made in this law and that a bill will be introduced in the session of the Legislature next year that will incorporate the amendments that were agreed on this last year. When those bills are introduced they will be called to your attention.

Respectfully submitted,
WALTER W. MOTT, M.D.
LEO F. SIMPSON, M.D.
JOHN L. BAUER, M.D., *Chairman*

May 1, 1945

This report was prepared by Dr. Robert R. Hannon, Executive Officer.

Postgraduate Medical Education

Programs arranged by the Council Committee on Public Health and Education of the Medical Society of the State of New York are published in this Section of the JOURNAL. *The members of the committee are Oliver W. H. Mitchell, M.D., Chairman (423 Greenwood Place, Syracuse); George Baehr, M.D., and Charles D. Post, M.D.*

The Treatment of Burns

A LECTURE on the treatment of burns was presented on May 22 at the Rome Hospital and Murphy Memorial Hospital in Rome by Dr. Earle B. Mahoney, assistant professor of surgery at the University of Rochester School of Medicine and Dentistry. The lecture was arranged by the Council Committee on Public Health and Education for the medical staff of the Rome Hospital and Murphy Memorial Hospital.

This instruction was presented as a cooperative endeavor between the Medical Society of the State of New York and the State Department of Health.

Oneida County Teaching Day

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the Hotel Utica, in Utica.

The afternoon program consisted of two talks. The first was "Diagnosis and Treatment of Breast Cancer," given by Dr. Cushman Davis Haagensen, assistant professor of surgery, College of Physicians
and the second,
ven by Dr. Gray
cancer research,
at the College of Physicians and Surgeons, Columbia University.

At the evening session Dr. George E. Binkley, instructor in medicine at the Cornell University Medical College, lectured on "Cancer of the Rectum." The final talk was "Cancer of the Gastrointestinal Tract," given by Dr. George T. Pack, assistant professor of clinical surgery, Cornell University Medical College.

This instruction was provided by the Medical Society of the State of New York and the New York State Department of Health.

Medical Program at Rochester

A PROGRAM of postgraduate lectures, held under the joint auspices of the Monroe County Medical Society, Rochester Academy of Medicine, and the University of Rochester School of Medicine and Dentistry, was held during the month of May in the auditorium of the Rochester
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On May 8 a lecture on "Circulatory Disturbances
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At the regular meeting of the Monroe County Medical Society on May 15 Dr. Albert F. R. Andresen, professor of clinical medicine at the Long Island College of Medicine, discussed "The Peptic Ulcer Problem."

The final lecture, on May 22, was entitled "The
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New York with the cooperation of the New York State Department of Health.

Hematologic Disorders

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Medicine, at a meeting of the Seneca County Medical Society on May 10 at the Armitage Tea Room, Seneca Falls.

Discussion on Penicillin

PENICILLIN
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This instruction on postgraduate medicine was presented jointly by the Medical Society of the State of New York and the New York State Department of Health. It took place at the regular monthly society meeting.

Medical News

County News

Albany County

Dr. Herman F. Senftner, of Albany, associate director of the Division of Communicable Diseases of the State Health Department, was guest on April 25 at a dinner in the DeWitt Clinton Hotel, given as a testimonial to his retirement after twenty-seven years of state service. Approximately thirty of his associates attended.

He was appointed to his present position in 1924. Previously he had practiced pediatrics in New York City and was connected with the California State Health Department.

In 1917, he came to New York as sanitary supervisor for Genesee, Erie, and Orleans Counties with headquarters at Buffalo.*

• • •

Commissioner of Education George D. Stoddard announced yesterday the appointment of Dr. Jacob Lewis Lochner, Jr., of Albany, as Secretary of the State Board of Medical Examiners. Dr. Lochner fills the vacancy caused by the resignation of Dr. Robert R. Hannon on December 31, 1944.

Dr. Lochner is a graduate of Tufts College Medical School, and served as intern and resident at Fifth Avenue Hospital, at Tufts College Maternity Clinic, at Providence Lying-In Hospital, as attending obstetrician and lecturer to nurses at Brady Maternity Hospital, Albany, as lecturer to nurses at Albany Training School for Practical Nurses, and as instructor at Albany Medical College.*

Bronx County

Dr. Nathan B. Van Etten was formally elected chairman of the Board of United Medical Service, Inc., at the first annual meeting of the service. Dr. Van Etten and other executives have been serving in a temporary capacity since the organization was founded in June, 1944.

Other Bronx residents elected for the period of one year are Dr. Harry Aranow, chairman of the nominating committee, and Dr. Milton J. Goodfriend, executive committee member.

Dr. Van Etten and Dr. Goodfriend are also members of the Board of Directors of Associated Hospital Service of New York.*

• • •

The regular meeting of the county society was held on April 18 at 8:30 P.M. in the Concourse Plaza Hotel. Following the executive session Dr. Walter A. Coakley, F.A.C.S., of the plastic and oral surgery staff of Kings County Hospital, spoke on "The Care and Treatment of Burns, Experience in Over 1,000 Cases."

Broome County

Dr. J. G. Fred Hiss, professor of clinical medicine, Syracuse University College of Medicine, addressed the April meeting of the county society on April 3 on the subject of "Rheumatic Fever—Rheumatic Heart Disease."*

• • •

The regular meeting of the county society was held on May 8 at 8:30 P.M. in the auditorium of Binghamton City Hospital. A lecture entitled "The Peptic Ulcer Problem" was given by Dr. Albert F. R. Andresen, professor of clinical medicine, Long Island College of Medicine.

Chenango County

Dr. Hugh S. Gregory, superintendent of the Binghamton State Hospital, was a speaker at a district three meeting of the New York State Community Service Council held on April 8 at Norwich High School.

Dr. Gregory's topic was "Our Responsibility as Young Adults to Returning Veterans." He said "we are pioneering a new field" and to help "we must familiarize ourselves with the problems they will meet." In illustrating his point Dr. Gregory turned to history and related how returning soldiers were received or treated after each of the major conflicts in which this country has participated.

It was his opinion that attempts should be made in advance to determine certain policies regarding the returning young men.*

Clinton County

The Medical Society of the County of Clinton held its semiannual meeting on May 22 at the Hotel Cumberland. The business meeting was called at 5:30 P.M., followed by dinner at 6:30 P.M.

Maj. Norman Levy, of Plattsburgh Barracks, spoke on "Emotional Problems of Returnees." Maj. Anthony D'Alfonso spoke on "A Flight Surgeon's Experience in the South Pacific."

Medical officers from Plattsburgh Barracks were guests of the society.

Cortland County

A talk on the health program in Geneva schools by Dr. James S. Allen, school physician, highlighted the April meeting of the Cortland Street School P.T.A., held on April 10 at the school.*

Essex County

Gov. Thomas E. Dewey announced on May 2 the appointment of Dr. Robert H. Gray, of Westport, as coroner of Essex County. He succeeds the late Dr. John M. Stafford.

Dr. Gray is health officer of the town and village of Westport and president of the county society.*

Herkimer County

The county society meeting on April 17 in the Prospect Hotel included two addresses pertaining to medicine and hospitals.

Maj. Maurice Stone, of the U.S. Public Health Service, explained the treatment of syphilis in the armed forces by the use of penicillin and other drugs.

The other speaker, H. C. Stephenson, of Utica, manager of the Hospital Plan, Inc., discussed new plans now being offered, which provide for several changes in benefits offered for medical and hospital care.*

* Asterisk indicates that item is from a local newspaper.

Jefferson County

The regular meeting of the county society was
nk L. Meleney,
at the College
ork City, spoke

Kings County

Mayor La Guardia, speaking on May 1 at dedication ceremonies of two new Child Health Stations in Brooklyn on National Child Health Day, said that these were only "very modest and temporary health stations," and promised residents of both the Bedford and Brownsville sections complete new permanent health centers for their neighborhoods as soon as they can be built when the war is over.

The two stations opened on May 1 will be abandoned as soon as the new projects are ready. They bring to sixty-three the number of centers operated by the
Oth
Frank
sioner,
Brooklyn.*

* * *

A borough-wide program of education in regard to cancer is underway.

The newly formed Brooklyn Cancer Committee of the American Cancer Society, under the chairmanship of Dr. S. Potter Bartley, has launched a campaign to raise $50,000, concurrent with the national campaign for $5,000,000. The local funds will aid in financing the educational program and in financing Brooklyn's first "Little Red Door" information center which has just opened.*

* * *

A stated meeting of the county society and the Academy of Medicine of Brooklyn was held on April 17 at 8:45 P.M. in MacNaughton Auditorium. Dr. Alfred Blalock, professor of surgery, Johns Hopkins Medical School, Baltimore, spoke on "Traumatic Shock."

Monroe County

The annual meeting of the Rochester Academy of Medicine was held on May 1 at 8:30 P.M., at the Rochester Academy of Medicine Building, Rochester, with a program held under the additional auspices of the county society and the University of Rochester School
Dr. Harold W.
DeLamar Institu
University Colleg
spoke on tropical diseases with special reference to filariasis.

* * *

Presentation of a three-point program for action against venereal disease highlighted the Rochester Social Hygiene Day meeting at the Chamber of Commerce on April 26.

Dr. John Roderick Heller, Jr., Assistant Surgeon General in charge of venereal disease control, U.S. Public Health Service discussed the effect of the war on prevention of venereal disease. Other speakers included Dr. Norris Orchard, of the Rochester Health Bureau, and Miss Rose Knobles, Rochester policewoman.

The three-point program calls for adequate facilities for detection and treatment of venereal infections, legal and protective action to promote whole-

gram, which was open to the public, included the Rochester Health Bureau, University of Rochester, State Department of Health, Monroe County Medical Society, Junior Chamber of Commerce, and the Tuberculosis and Health Association.*

Nassau County

The regular monthly meeting of the county society was held on April 24 at 9:00 P.M. in the auditorium of Mercy Hospital, Rockville Centre. Dr. J. William Hinton, of New York City, associate professor of surgery, College of Physicians and Surgeons, spoke on "The Intractable Ulcer, with Emphasis on the Indications for Surgery."

New York County

Expansion plans for the Post-Graduate Medical School and Hospital as a center for care of the sick and the advanced training of practicing physicians were outlined at the seventieth anniversary dinner of the institution on May 10.

as a memorial and tribute to the "fighting doctors" in the armed services.

Post-Graduate's development plan, as described by Dr. William B. Talbot, superintendent of the hospital, contemplates a new clinic, classroom, and laboratory building, to be erected on the land adjacent to the present plant. The cost of the new building is estimated at $1,500,000, and an additional $3,500,000 in endowment is required for staffing and research.

Other steps include a private pavilion of two hundred beds, a new medical school building, and a new hospital unit for ward beds to replace Roosa Building, opened for service in 1894. Total construction costs are estimated at $6,500,000, with an additional $8,500,000 needed for endowment.*

* * *

The stated monthly meeting of the county society
M. in the New York
The scientific program consisted of a lecture entitled "Relationship of Psychiatry to the Practice of Medicine," by Dr. Harry Solomon, professor of psychiatry at Harvard Medical School, with discussion by Drs. Carl Binger, Thomas A. C. Rennie, and Nolan D. C. Lewis.

* * *

On April
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sity was h
of the Alur
the present graduating class.

Maj. Gen. George F. Lull, Deputy Surgeon General of the United States Army, gave a very interesting talk about the medical department and the war at present. Dean W. C. Rappleye told members of some of the postwar plans for the school of medicine.

The following officers were elected for the ensuing year: John J. H. Keating, 1917, president; B. S. Oppenheimer, 1901, vice-president; James A. Corscaden, 1906, treasurer; Charles C. Lieb, 1906, secretary; T. Lloyd Tyson, Jr., 1931, historian.

• • •

Dr. Milton J. Rosenau, president-elect of the American Public Health Association, and the dean of the School of Public Health, University of North Carolina, was the principal speaker at the annual meeting of the Public Health Association of New York City on May 17. For many years Dr. Rosenau was affiliated with the Harvard School of Public Health Service; his textbooks on public health are standard and are used not only in the schools of this country but also throughout Canada and South America.

The Public Health Association's annual meeting opened with an afternoon session at 4:00 P.M. at which there was a panel discussion on "New Fields of Development in Public Health" and a review of the public-health aspects of the use of penicillin, sulfonamides, and vitamins. Participating in the discussion were: Arthur I. Blau, M.D., district health officer, Jamaica Health Center, chairman; Otto A. Bessey, Ph.D., director and chief of the Division of Nutrition and Physiology, the Public Health Research Institute of the City of New York; Earle G. Brown, M.D., commissioner, Nassau County Department of Health; Jerome S. Peterson, M.D., district health officer, Red Hook-Gowanus Health Center, Brooklyn; John L. Rice, M.D., consultant in public health, Lederle Laboratories, Inc.; and Clarence L. Scamman, M.D., director, Division of Public Health, Commonwealth Fund.

Onondaga County

A joint meeting of the county society and the Syracuse Academy of Medicine was held on April 13 at the University Club. Dr. Alexander Mason discussed "Diagnosis in Urology," which was illustrated with lantern slides. Discussion was opened by Dr. Lucas S. Henry. Dr. Leon H. Griggs then spoke on "Overtreatment in Dermatologic Diseases."

A joint meeting of the county society and the Syracuse Academy of Medicine was held on May 15 in the Syracuse Psychopathic Hospital. The scientific program consisted of four lectures: "Masked Neuroses in Internal Medicine," by Dr. A. B. Siewers, "Psychiatric Implications of Internal Medicine," by Dr. H. A. Steckel, "Electroencephalography," by Dr. J. E. Alderman, and "Some Notes on Penicillin in General Paresis," by Dr. A. N. Fleiss.

Ontario County

The second quarterly meeting of the county society was held at Clifton Springs Sanitarium and Clinic on April 10. The program was as follows: 5:00 P.M.—business meeting in the Woodbury Building; 6:30 P.M.—dinner; 7:30 P.M.—scientific session: "Remarks on Some of the Newer Drugs," by Max B. Riepel, Ph.B.; "Surgical Treatment of Prolapse of Rectum with Case Report," by Dr. A. S. Taylor; and "Case of Myocardial Infarction with Autopsy Reports," by Drs. P. V. Newland and John W. Karr.

Queens County

Dr. William M. Cooper, F.A.C.S., surgeon at the Polyclinic Hospital, New York, was the guest speaker at the regular meeting of the Rockaway Medical Society on March 15 at the Lawrence Country Club. At the scientific session Dr. Cooper spoke on "Modern Treatment of Varicose Veins and Complications." Dr. Herman Gliboff, of Rockaway Beach, president of the local society, presided.*

• • •

Dr. Edward J. Buxbaum, of Jamaica, inventor of the valve which prevents blood from flowing from the patient at the time he is receiving a transfusion, on March 12 explained, by means of slides, the testing of blood for possible disease, at the John H. Hessel Memorial Hall of the Woodmere Academy.

Dr. Buxbaum demonstrated how the red and white cells change form as infection in the body grows.

Dr. Buxbaum brought the actual equipment used in transfusions. He defined serum, plasma, and liquid blood, and explained blood types and how they can be kept.*

• • •

The stated meeting of the county society was held on March 27 at 9:00 P.M. at Forest Hills Inn. Dr. James E. Perkins, director, Division of Communicable Diseases, New York State Department of Health, spoke on "Recent Changes in Our Conception of Manner of Spread and Control of Communicable Respiratory Diseases." The discussion was opened by Drs. Goodwin A. Distler, Evan W. McLave, James R. Reuling, Jr., and A. W. Victor.

• • •

On April 6 at 4:30 P.M. Dr. Samuel Zwerling, associate surgeon, Brooklyn Eye and Ear Hospital, and associate attending surgeon, Greenpoint Hospital, spoke on "Problems of the Hard of Hearing."

On April 13 at 4:30 P.M., Dr. Albert F. R. Andresen, professor of clinical medicine, Long Island College of Medicine, and attending physician (gastroenterologist), Long Island College Hospital, discussed "The Management of Gastrointestinal Hemorrhage." These meetings took place at the County Society Building, in Forest Hills.

Rensselaer County

Capt. Julien A. Hebert, well-known Troy physician who has taken part in four invasions in Europe and is now home on leave for treatment of wounds received in France, was the principal speaker at the first report meeting of the Red Cross War Fund drive on March 7.

Captain Hebert has been serving in the Medical Corps with a glider outfit of the Airborne Infantry. He came down by glider into Holland during that invasion. Previous to that he took part in the invasions of Sicily, Italy, and Normandy. He has been overseas for twenty-four months.*

Richmond County

Dr. Madge C. L. McGuinness, authority on physical therapy, spoke at the open luncheon meeting of the Staten Island Council of Social Agencies on March 21 in the Meurot Club, St. George. Dr. McGuinness spoke on "Rehabilitation."

Her talk included a general discussion of the whole field of physical therapy, which has become increasingly important because of its use in hastening recovery from war injuries. It is described as the treatment of disease and injury by nonmedical means as prescribed by physicians.*

Schenectady County

"Functional Nervous Disorders Associated with Warfare" was the topic discussed by Dr. Foster Kennedy, professor of clinical neurology at Cornell

[Continued on page 1242]

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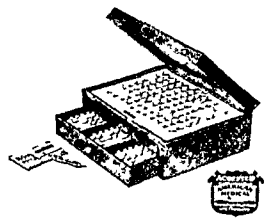
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[Continued from page 1240]

University Medical College, at a meeting of the county society on April 3 at 8:30 P.M. in Ellis Hospital.*

Steuben County

The Spring meeting of the county society was held at the Baron Steuben Hotel, Corning, on April 12. The scientific program, following luncheon and the business meeting, consisted of a lecture entitled "Penicillin Therapy," given by Dr. Fred T. Schnatz, assistant professor of medicine, Buffalo Medical College.

Ulster County

The regular Spring meeting of the county society was held at the Governor Clinton Hotel, Kingston, on April 4 at 8:45 P.M. The scientific session consisted of a symposium on the treatment of diabetes. Dr. Herman O. Mosenthal, of New York City, discussed insulin; Dr. George E. Anderson, of Brooklyn, talked on diet; Dr. Henry Dolger, of New York City, spoke on ketosis; Dr. Frederick W. Williams, of New York City, told about Camp Nyda. General discussion with questions and answers followed.

Warren County

An honorable medical discharge from service in the U.S. Army Medical Corps has been granted Dr. Roger S. Mitchell, former practicing physician in Glens Falls. Dr. Mitchell plans to resume his practice there.

A major in the Medical Corps, Dr. Mitchell was given his discharge while at Fitzsimons General Hospital, Denver, Colorado. Previously he had served at Miami Beach, Orlando, and Eglin Field, Florida, the School of Aviation Medicine at Randolph Field, Texas, and at the A.A.F. Classification Center, Nashville, Tennessee.

Dr. Mitchell enlisted in the service and had been on active duty twenty-eight months.*

Westchester County

"Child Behavior" was the topic of Dr. Reginald A. Higgons, Port Chester pediatrician, when he addressed the Harrison Avenue Home and School Council recently in the school library.

Dr. Higgons is attending pediatrician at United Hospital, consulting pediatrician at Grasslands Hospital, and attending pediatrician and chief of staff at St. Luke's Hospital, convalescent branch.*

. . .

Dr. Natale Colosi, of Yonkers, professor of bacteriology and public health at Wagner College and director of the Parkway Hospital, has been appointed a member of the Interstate Sanitation Commission by Governor Thomas E. Dewey.*

. . .

A financial appeal, conducted by the Westchester Committee for Planned Parenthood, started on April 2.

A goal of $10,000 has been set to provide funds to support seven county clinics and to establish a central office in White Plains with a fulltime paid executive.

Clinics in Port Chester, Mount Kisco, Ossining, Yonkers, Mount Vernon, White Plains, and New Rochelle are now operated on a part time basis, through assistance of volunteers, with the services of a doctor and a case worker.*

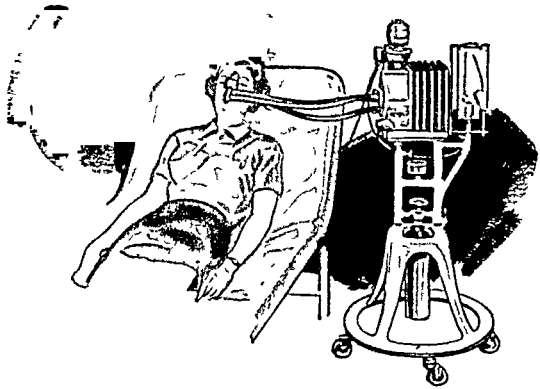
Necrology

Clyde Hulee Brown, Comdr., (MC), USNR, was killed in action on Okinawa, at the age of 42. He was in charge of the Military Government Hospital there. Commander Brown was a native of Cullman, Alabama; he graduated from Vanderbilt University Medical School, Nashville, Tennessee, in 1926. He served his internship and residency at Knickerbocker Hospital, and then specialized in internal medicine, practicing in New York until he entered the Navy in 1941. He was assistant attending physician at French Hospital and City Hospital, chief physician of the arthritis clinic of the French Hospital Outpatient Department, and a member of the American Rheumatism Association, the State medical society, and the American Medical Association.

Walter Gray Crump, M.D., surgeon and gynecologist, of New York City, died on May 2 at the age of 75. Dr. Crump was professor emeritus of surgery at New York Medical College, Flower and Fifth Avenue Hospital, where he taught from 1897 to 1936. He was also consulting professor of surgery at New York Polyclinic Medical School and Hospital and consulting surgeon at the following hospitals: Middletown State, Connecticut; Mt. Vernon; and Yonkers General; and consulting gynecologist at United Hospital, Port Chester. He was a graduate of the New York Homeopathic Medical College, class of 1895. Dr. Crump was one of the founders of the Broad Street Hospital, and he helped to establish the New York Medical College for Women and was a member of its faculty until it closed in 1919. He was a fellow and a governor of the American College of Surgeons, and a member of the Homeopathic Medical Society of the State of New York, the State medical society, and the American Medical Association.

Abraham Wilson Dods, M.D., of Fredonia, died on April 13 at the age of 91. He was born in Dingwall, Scotland, but came to this country at the age of 18 and graduated from Chicago Homeopathic Medical College in 1878. He practiced in Silver Creek until 1884. Following a postgraduate course in surgery at Edinburgh University he went to Fredonia, where he practiced until his retirement in 1923. He specialized in surgery in the latter years of his practice. Dr. Dods was a member of the American Institute of Homeopathy, the New York and New England Association of Railway Surgeons, Dunkirk-Fredonia Medical Association, Chautau-

[Continued on page 1244]



In Hyperthyreosis, too

The symptom complex of increased appetite, exaggerated psychomotor tension, hyperhidrosis, and loss of weight, in addition to spelling thyrotoxicosis, also reflects the intense metabolic activity characteristic of this condition. Utilization of nutrients may be 50 per cent above normal.

Whether therapy be conservative or surgical, metabolic deficits must be eradicated and some of the consumed body tissue restored. To this end the intake of virtually all essential nutrients must be doubled. If surgery is contemplated, nutritional preparation ranks in importance with iodine preparation for a successful outcome.

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PHOSPHORUS	903 Gm	NIACIN	7.0 mg
IRON	11.94 mg	COPPER	.5 mg

*Based on average reported values for milk.

[Continued from page 1242]

qua County Society, the State medical society, and the American Medical Association.

Edwin Breck Eckerson, Maj., (MC), USNR, of New York City, was killed in the suicide attack of a Japanese pilot on the hospital ship *Comfort,* where he was chief surgeon. He was 40. Major Eckerson graduated from the College of Physicians and Surgeons, Columbia University, in 1931. He interned at St. Lukes Hospital, New York City, and was a resident at the Lahey Clinic, Boston. In civilian life he was assistant surgeon at St. Lukes Hospital and St. Lukes Outpatient Department, assistant surgeon at New York Post-Graduate Hospital, and chief surgeon of Post-Graduate's Outpatient Department, and assistant surgeon at Mt. Vernon Hospital. He was a member of the New York Academy of Medicine, the State medical society, and the New York County Society, and was a fellow of the American College of Surgeons.

Sidney Lasalle Ford, M.D., of Hensonville, died at 79 on April 16. He graduated from New York University Medical College in 1891 and practiced in Brooklyn for a time before settling in Hensonville. He had practiced for over fifty years. He was a member of the Greene County society, the Medical Society of the State of New York, and the American Medical Association.

Carl T. Harris, M.D., orthopedic surgeon, of Rochester, died on April 17. He was 54. Dr. Harris was born in Spencerport, graduated from Harvard Medical School in 1916, and interned until 1918 in Boston City Hospital. He served overseas in the first World War. He was consulting surgeon, Iola Sanatorium, orthopedic surgeon, Strong Memorial Hospital, chief orthopedic surgeon, Highland Hospital, and orthopedic surgeon, Genessee Hospital and Monroe County Infirmary. He was a member of the American Orthopedic Association and the American Academy of Orthopedic Surgery, the State medical society, and the American Medical Association.

Irene A. T. Kenny, M.D., of New York City, died on April 27, of a heart ailment, at the age of 57. She graduated from Leland Stanford Medical School in 1916, interned at Bellevue, and was resident and visiting surgeon at Bellevue and St. Vincent's hospitals, and after 1931 director of the outpatient department of the Jersey City Medical Center. She was a member of the New Jersey Medical Society and the American Medical Association.

James Herbert Lawson, M.D., of New York City, medical director of several American Olympic teams, died on April 26 at the age of 68. Dr. Lawson was born in Baltimore; he graduated from the College of Physicians and Surgeons, New York City, in 1902, and was an intern at St. Vincent's and New York Lying-In hospitals. He had been attending surgeon at General Memorial Hospital and chief surgeon of the outpatient departments of Babies' Hospital and St. Mary's Hospital for Children. A lifelong devotee of amateur sports, Dr. Lawson was medical director for the American Olympic teams at the games in Amsterdam, Lake Placid, Los Angeles, and Berlin.

Peter Francis Purcell, M.D. of Schenectady, died on May 2; he was 63 years old. He graduated from Albany Medical College in 1911 and engaged in the general practice of medicine for the following thirty-two years. He was a member of the Schenectady County society, the Medical Society of the State of New York, and the American Medical Association.

Hyman John Rubinstein, M.D., otolaryngologist, of New York City, died on April 30 at the age of 41. He graduated from Tufts Medical College in 1927. He was clinical assistant visiting otorhinolaryngologist at Metropolitan Hospital and assistant otolaryngologist in the outpatient department of Mt. Sinai Hospital. He was active in the Zionist movement. He was a member of the American Academy of Ophthalmology and Otolaryngology and a diplomate of the American Board of Otolaryngology, and a member of the New York County society, the State medical society, and the American Medical Association.

Ulysses B. Stone, M.D., of Buffalo, died on January 18; he was 73 years old. He graduated from the Medical College of the University of Buffalo in 1896.

Hiram N. Vineberg, M.D., F.A.C.S., died on May 4 at the age of 90. He was born in Russia but went to Cornwall, Ontario, at the age of 5. In 1878 he was graduated from McGill University Medical School with highest honors. At the advice of his professor, Dr. William Osler, he went to London; then he went to New Zealand and Hawaii, and back to Canada, where he practiced, in Portage La Prairie, Ontario; it was at this time that he decided to specialize in gynecology. He is credited by his fellow gynecologists with a major role in the development of modern gynecologic methods. He was consulting gynecologist at Mt. Sinai, Montefiore, and Beth Moses hospitals, and was also connected with Polyclinic and St. Mark's hospitals. He was a member of the New York Obstetrical Society, the American Gynecological Society, and the New York Academy of Medicine, the State medical society, and the American Medical Association.

Max Winsor, M.D., psychiatrist affiliated with the Bureau of Child Guidance of the Board of Education, died on May 4 at the age of 47. He graduated from Columbia's College of Physicians and Surgeons in 1932 and interned at the Warwick State School Extension of the Neurological Institute of New York. At the time of his death he was also director of clinical work for a two-year research project established in 1943 by the New York Foundation and a lecturer on social psychiatry at the New York School of Social Work. He was a member of the American Orthopsychiatric Association, the State medical society, and the American Medical Association.

DR. CARL BINGER WINS PRIZE FOR BOOK FOR LAYMEN

W. W. Norton and Company have announced that the award of $3,500 offered to encourage the writing of books on medicine and the medical profession for the layman has been won by Dr. Carl Binger, a member of our Society. The book, "The Doctor's Job," undertakes to put the lay public in touch with the medical world as it exists today, to relate medicine to society, and to demonstrate the spirit which inspires and sustains medical men in their work. Dr. Binger, a graduate of Harvard Medical School, who has served with the Rockefeller Institute for Medical Research, is now on the faculty of Cornell University.—*N.Y. Med., Feb. 5, 1945*

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SIX-MONTHS' REPORT OF MEDICAL AND SURGICAL RELIEF COMMITTEE

Mr. Arthur Kunzinger, treasurer of the Medical and Surgical Relief Committee, today announced that for the six-month period ending December 31, 1944, the Committee's donations to 21 countries, including the United States, amounted to $43,669 87.

The territory covered by the Medical and Surgical Relief Committee has increased as the number of liberated countries has increased, and contributions now reach France and Italy United States tops the list of beneficiaries with $16,386 13, the U.S. Army, $1,025.40, and various civilian hospitals and welfare agencies, the balance of $11,818 95

The greatest number of shipments for this period went to China and India, while the most valuable single

(1) No authentic appeal is ever turned down, and (2) Medical aid is the only form in which aid is given Contributions of medical, surgical, and dental supplies and instruments will soon reach the $700,000 mark. The exact figure to date is $690,715 60

Appreciation . . .

The Physicians' Home received a colorful and heartwarming letter from the wife of a physician who recently lost his vision. Her husband, a beneficiary of the Physicians' Home, receives a check each month for maintenance in his own community, among his friends and former patients. Help us continue this friendly and constructive service to our colleagues. Please make your check payable to

THE PHYSICIANS' HOME, Inc.

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Hospital News

Existing Hospitals Can Treat Most Veterans, Dr. Aaron Says

IN HOSPITALIZATION, a veteran should be treated like any other private patient—in a hospital of his own choice and with his own physician to take care of him, Dr. A. H. Aaron, president of the Medical Society of Erie County, asserts in an editorial in the society's bulletin dated April 26, 1945.

Dr. Aaron points out that he is in no way opposed to the erection of a veterans' hospital in Buffalo, as proposed, but he suggests that this hospital be arranged to take care of neuropsychiatric, tubercular-convalescent, and other types of difficult cases. Aside from such cases, veterans should have free choice of hospitals, he asserts.

"The medical profession," Dr. Aaron points out, "believes that the paramount consideration is: Every possible step must be taken to make certain that the best medical care is placed within the reach of all veterans—those disabled as the result of military service and those whose disabilities are not service-connected. I am 100 per cent behind that attitude and pledge."

Dr. Aaron announced the appointment of a special committee on the veterans' hospital question, with Dr. Roy L. Scott as chairman. Every member of this committee is a veteran of World War I or World War II—Drs. Scott, Robert E. DeCeu, John C. Brady, Maj. A. F. Bellanca, Frank H. Long, P. H. J. Buckley, Lt. Comdr. C. A. Koch, and John D. Naples. Dr. Scott has invited the following to participate in the committee's deliberations: Dr. Edward W. Koch, Dr. R. W. Groh, the Rt. Rev. Albert Rung, Dr. Fraser D. Mooney, Henry T. Brandt, and Carl M. Metzger.

Agreement With Doctors Reached by State Executive Committee

AGREEMENT in specific terms with representatives of the State Medical Society on the vexed question of the status of certain specialists in the hospitals was arrived at by the Executive Committee of the State Hospital Association at the special meeting with the physicians' committee held in New York on February 17. This agreement, which is, of course, subject to the action of the governing bodies of the two organizations, is as follows:

(*a*). It is agreed that pathology, anesthesiology, roentgenology, and physical therapy are medical services and the practice of medicine.

(*b*). That these specialties are so recognized.

(*c*). That an equitable arrangement can be made between the individual hospitals and the doctors who practice these four specialties recognizing the above principle, whereby the hospital may bill for these services in the name of the person rendering the service. (This can be done by inserting the name on the regular hospital billhead, i.e., instead of x-ray, indicate "Professional Services of Dr. ———, roentgenologist.")

(*d*). Until such time as a medical service plan is available, there is no objection to inclusion of these medical services in the hospital service plan contract as long as the principle of recognition and proper remuneration to these specialists is carried out.—*Hospital Forum, March, 1945*

Improvements

The new Doctor's Hospital on Shore Road, Port Washington, opened in April and its facilities were expected to help ease the acute bed shortage in Nassau County medical institutions.

The hospital can accommodate twenty bed patients. It has laboratory and x-ray facilities and a house physician is available at all times.

The new institution is all set to go ahead with an expansion program in the near future. Obstetrics are not being handled at the present time, but all other medical and surgical cases are being accommodated.

A number of physicians have been invited to join the staff as consultants. They include Dr. Philip Allen, chief surgeon at Bellevue Hospital, and Dr. Reginald Conklin, attending physician at St. Luke's Hospital, in New York City.

An "open hospital," its facilities are available to all doctors registered with the State medical society as long as there are beds available.

The building has been completely renovated.*

* * *

The new hospital grounds of Tarrytown Hospital were opened to the public from 3:00-6:00 P.M. on Sunday, May 13, which was observed as Hospital Day, it was announced by the Board of Directors of the Tarrytown Hospital Association on April 15.*

* * *

An iron lung was recently presented to Glens Falls Hospital as a result of a drive sponsored by Glens Falls Council 417, United Commercial Travelers.*

* * *

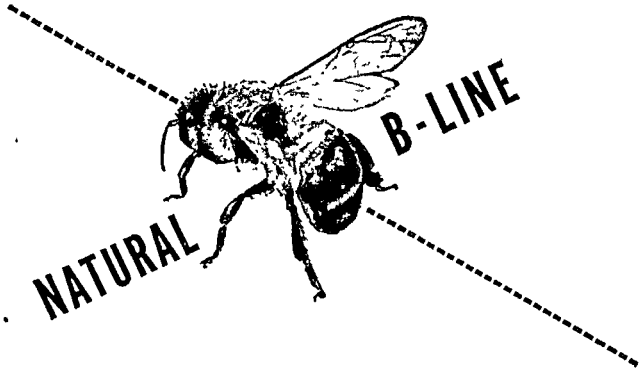
Dr. Frank A. Calderone, Acting Commissioner of Health, New York City, announces the establishment of a city-wide nutrition clinic at the Lower East Side Health and Teaching Center with Dr. Norman Jolliffe as Chief of Clinic.

The purposes of the clinic are as follows:

1. To furnish a diagnostic and treatment center and consultation clinic for patients suspected of having nutritional abnormalities.
2. To furnish a training center for physicians, nurses, and others interested in the diagnosis, treatment, and prevention of deficiency diseases.
3. To develop and correlate diagnostic methods for the detection of early nutritional diseases.
4. To determine the significance of various manifestations of nutritional diseases.

[Continued on page 1248]

* Asterisk indicates that item is from a local newspaper.



In a straight-to-the-point attack on vitamin B-complex deficiency states, Elixir 'OMNI-BETA'* provides all the known as well as the unidentified factors of the complex as derived from three of its richest natural sources... yeast, liver and rice polishings.

Blended for balance in a palatable liquid form, Elixir 'OMNI-BETA' is highly concentrated for potency— a single teaspoonful daily provides the minimum adult requirements.

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Supplied in bottles of 4 and 8 fluidounces

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VITAMIN B-COMPLEX

OMNIS ORBIS WARNER

WILLIAM R. WARNER & CO., INC., 113 WEST 18TH STREET, NEW YORK, 11, N. Y.

[Continued from page 1246]

5. To determine the most effective methods of treatment and prevention of deficiency diseases.

6. To obtain information concerning food habits in relation to nutritional disease.

7. To translate, when indicated, the diagnostic procedures and conclusions of this clinic into practice in other Health Department units.

Plans are being formulated for the Public Health Research Institute and the Nutrition Division of the Department of Health to cooperate with the nutrition clinic so that it will be possible to correlate the dietary and chemical studies with the medical findings.

• • •

A Hodgkin's disease clinic and research laboratory, under the direction of Dr. Antonio Rottino, has been established at St. Vincent's Hospital in New York City. The clinic and laboratory will collaborate with Dr. Herman Hoster, of Ohio State University, Columbus, Ohio, Dr. Robert Chambers and C. G. Grand, of New York University, and with Maj. Perk L. Davis at the Walter Reed General Hospital, Washington, D.C., in studying the etiology and treatment of Hodgkin's disease (lymphogranuloma). The preliminary work on etiology has already been done by C. G. Grand, who first demonstrated by tissue-culture methods inclusion bodies in tissues removed from patients with Hodgkin's disease.

Inasmuch as cases of Hodgkin's disease are comparatively rare, and because fresh, unfixed tissue is essential for the studies to be pursued, the clinic must have patients referred by private physicians. It is therefore asked that those reached by this notice send cases of unexplained lymph node enlargements to Dr. Rottino and his group at St. Vincent's Hospital. It is understood that any patient referred for such stu[illegible] private attention, will not be c[illegible] or surgical service extended. It is further understood that a report of the results of each study will be sent to the referring physicians. Patients whose disease proves to be other than Hodgkin's disease will be sent back to the referring physician; those diagnosed as Hodgkin's disease will be retained in the clinic for follow-up care and treatment, with the permission of the referring physician.

• • •

Jones Memorial Hospital, in Wellsville, has been equipped with a modern and complete operating table as the result of a joint gift made by the Moore Steam Turbine Division of Worthington Pump and Machinery Corporation, Sinclair Refining Company, Air Preheater Corporation, Bradley Producing Company, and Empire Gas and Fuel Company, Ltd.

Announcement of the latest contribution of hospital equipment was made on April 11 by L. W. Coon, hospital superintendent.

The table, known as American Model 1075, is the most modern piece of this type of equipment on the market today.*

At the Helm

Dr. Cornelius P. Rhoads, since 1939 director of Memorial Hospital for the Treatment of Cancer and Allied Diseases, New York, returned to his post on April 15, after nearly two years' leave of absence, during which he was chief of the Medical Division of the Chemical Warfare Service of the Army of the United States.

• • •

Maynard L. Kast, assistant cashier of the First National Bank, was named to succeed Frank D. Dingman as treasurer of Herkimer Memorial Hospital on April 10 at the annual election of officers, marked also by the return of George J. Sluyter for his twentieth term as president.

Others chosen were: Mrs. C. B. Root, first vice-president; W. P. Small, second vice-president; and Miss Mae C. Harter, who was advanced from assistant secretary to secretary, succeeding the late Mrs. Margaret Jackson, incumbent since the hospital was organized in 1925.*

• • •

Mayor Walker B. Lounsbery, of Binghamton, announced on April 7 the appointment of Mrs. F. F. Ingwall to the Board of Managers of City Hospital for a six-year term.*

• • •

In the April meeting of the board of directors of F. F. Thompson Hospital on April 13, Howard G. Kennedy, a member of the corporation, was elected a board member to fill a vacancy. John D. Hamilton, president, conducted the meeting, when routine reports were presented.*

• • •

Dr. Frederick Gifford, Dr. Ernest H. Panasci, and Dr. Mary Lou Squires have been appointed associate members of the medical staff of the Rome Hospital and Murphy Memorial Hospital, Rome, it has been announced by the board of managers.*

• • •

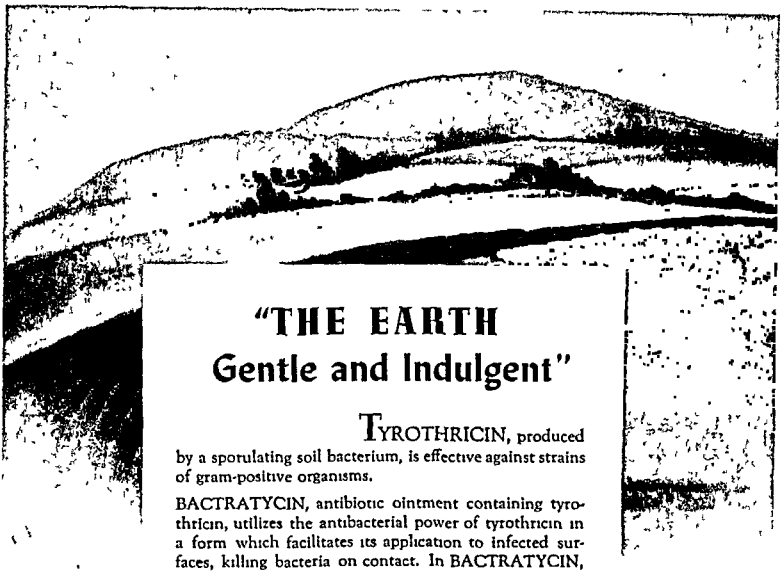
Dr. Arthur L. Drew, Jr., has been appointed resident physician at the Potts Memorial Institute. Dr. Drew, whose home is in Pleasantville, graduated from the College of Physicians and Surgeons, Columbia University, in 1941. He had one year of rotating internship at Grasslands Hospital, Valhalla, and then entered upon active duty in the U.S. Navy and was thus engaged from 1942 to 1945. He served in the Amphibious force and aboard ship in the North Atlantic and the Mediterranean Sea, and in the invasion of North Africa. During his service he also received special instruction in neuropsychiatry in Philadelphia, followed by a year of duty in neuropsychiatry at the U.S. Naval Hospital, Portsmouth, Virginia.*

• • •

Charles H. Griffin, general manager of the New Rochelle *Standard-Star*, was elected to the Board of Governors of the New Rochelle Hospital Association at a meeting of the board on April 16 at the hospital.*

• • •

[Continued on page 1250]



"THE EARTH Gentle and Indulgent"

TYROTHRICIN, produced by a sporulating soil bacterium, is effective against strains of gram-positive organisms.

BACTRATYCIN, antibiotic ointment containing tyrothricin, utilizes the antibacterial power of tyrothricin in a form which facilitates its application to infected surfaces, killing bacteria on contact. In BACTRATYCIN, tyrothricin is in true solution—not in suspension, thus imparting a desirable degree of tissue penetration.

BACTRATYCIN *is effective in*

impetigo	*indolent ulcers*
pustular dermatitis	*chronic abscesses*

and related conditions either caused or complicated by streptococci, staphylococci, pneumococci and other gram-positive organisms. Each gram of BACTRATYCIN contains 0.30 mg. tyrothricin.

BACTRATYCIN is for topical use only. It must not be used in freely bleeding wounds. Apply directly to infected areas.

Available in jars containing 2 oz

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TRADEMARK

Antibiotic Ointment

Containing

TYROTHRICIN

Literature to physicians on request

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[Continued from page 1248]

Eight officers, including one Medical Corps captain, three Army nurses, and four Medical Administrative Corps officers, have reported for duty to Rhoads General Hospital, it was announced recently by Col. A. J. Canning, commanding officer.

Capt. Edward P. Webber, of Palmer, Massachusetts, is the doctor. Nurses include First Lt. Millicent E. Moore, Westfield, Pennsylvania, First Lt. Gelda L. Johnson, Exira, Iowa, and Second Lt. Josephine Conte, Hudson, New York.

The administrative officers are Lt. Charles R. Rothemich, Providence, Rhode Island; Lt. Francis K. Sullivan, Sault Ste. Marie, Michigan; Lt. Harold C. Haag, Mt. Horeb, Wisconsin; and Lt. Abraham A. Kaplan, Malden, Massachusetts.

* * *

Isaac Albert, for many years actively identified with philanthropic and community endeavors, has been re-elected for a second term as president of the Jewish Sanitarium and Hospital for Chronic Diseases of Brooklyn, it has been announced by the institution's board of directors. Mr. Albert has been affiliated with the hospital for thirteen years.

In assuming the hospital presidency for a second term, Mr. Albert said plans are being completed for the construction of an additional $1,000,000 building which will add three hundred more beds to the hospital's present complement of five hundred and twenty-five.

* * *

The appointment of Mrs. Madolin Woods Wang as director of nursing service and as principal of the School of Nursing of Mount Vernon Hospital was announced by Arthur L. Zerbey, president of the hospital board of trustees, at a meeting on March 19 at the hospital.

A resident of Port Chester and until recently assistant in nursing administration at Grasslands Hospital, Mrs. Wang assumed her post on March 28, succeeding Miss Mildred E. Schwier, who resigned in December. The post, in the interim, had been filled by Miss Gertrude Welch of the hospital nursing staff.*

* * *

Dr. Jacob Sobel, of New York City, has been appointed medical director of the Home and Hospital of the Daughters of Israel for the Aged, in New York City.

* * *

Resignation of Dr. Christopher G. Parnall, medical director of Rochester General Hospital for the past twenty-one years, effective October 1, was disclosed March 28 following a meeting of the board of directors of the century-old institution.

In a letter to Elliott W. Gumaer, president of the hospital's board of directors, Dr. Parnall told of his intention to resign, a surprise action, Gumaer said, because the directors had anticipated his tenure would continue until retirement. The board accepted the resignation "reluctantly and with genuine regret," a statement said.*

* * *

Appointment of Arthur B. Solon, superintendent of Mount Vernon Hospital for the past four years, as Superintendent of the Suburban Hospital in Bethesda, Maryland, effective April 15, was announced recently by officials of the Maryland institution.

Mr. Solon will be succeeded in Mount Vernon by Dr. Donald M. Morrill, formerly superintendent of Malden Hospital, Massachusetts. Dr. Morrill's appointment as Chief Administrative Officer of Mount Vernon Hospital was announced in April by the hospital's Board of Trustees. Previous to his duties at Malden, Dr. Morrill was administrator of two large hospitals in Michigan.

At Suburban Hospital Mr. Solon will succeed J. Dewey Lutes, who has resigned to become Superintendent of the Yonkers General Hospital.

The Bethesda Hospital, which was opened in December, 1943, has a capacity of 135 beds and serves an area comprising Bethesda, Chevy Chase, and the northwest sector of the District of Columbia.

A native of Wisconsin, Mr. Solon came to Mount Vernon in the Spring of 1941, after serving as assistant superintendent of the Wisconsin State General Hospital.*

Newsy Notes

A miniature Army evacuation hospital, complete with actual surgery and ward tents, field nurses' quarters and the most modern medical equipment, was opened for public inspection on April 27 in the Civilian Defense Volunteer Office War Information Center in New York City.

The exhibition, scheduled to go on nation-wide tour after closing in New York on May 9, forms a part of the current national drive to sign up 14,000 nurses for the Army before June 1. Within the last week American Red Cross volunteers have begun making individual calls on each of the fifty-five thousand nurses throughout the country who have been classified as eligible for military service by the War Manpower Commission.*

* * *

Plans for the construction of a $1,000,000 building are being completed by the Jewish Sanitarium and Hospital for Chronic Diseases, Brooklyn, it was announced by Isaac Albert, who was re-elected recently as president of the hospital for a second term, as announced above.

The building will add three hundred beds to the hospital's present complement of five hundred and twenty-five and will make the sanitarium one of the largest in the State for the care of incurable patients. Mr. Albert said groundbreaking ceremonies would be held as soon as priorities are cleared with the War Production Board. More than four hundred applicants are awaiting admission to the hospital.*

* * *

Construction of a sixteen-story addition to St.

[Continued on page 1252]

"don't smoke"...

IS ADVICE HARD FOR PATIENTS TO SWALLOW!

May we suggest, instead, *SMOKE "PHILIP MORRIS"?* Tests* showed 3 out of every 4 cases of smokers' cough cleared on changing to PHILIP MORRIS. Why not observe the results for yourself?

*Laryngoscope, Feb. 1935, Vol. XLV, No. 2, 149-154

TO THE PHYSICIAN WHO SMOKES A PIPE: We suggest an unusually fine new blend—COUNTRY DOCTOR PIPE MIXTURE. Made by the same process as used in the manufacture of Philip Morris Cigarettes.

[Continued from page 1250]

Vincent's Hospital is now being planned as a memorial to the late Alfred E. Smith, according to an announcement by the Most Rev. Francis J. Spellman, Archbishop of New York and Honorary President of the Hospital.

The new structure, to be known as the Alfred E. Smith Memorial Building, will replace sections of the hospital on West 12th Street, between Seventh Avenue and the Nurses' Residence, and will cost $3,000,000. Funds for the purpose will be raised through a public campaign, soon to be launched by the Hospital's Advisory Board.

St. Vincent's, which is conducted by the Sisters of Charity, will have facilities in the new unit for all classes of patients, the Archbishop announced, because "Alfred E. Smith himself was a friend to all sorts and conditions of men." In addition to enlarging the Hospital's present capacity by two hundred and fifty beds, the new building will also house the Hospital's laboratories, its blood bank, its emergency admitting department, its medical records, the kitchens, dietary department, locker rooms, refrigerating system, power plant, and other facilities.

. . .

Camp Upton, originally a reception center, is being rapidly transformed into an extensive hospital and rehabilitation center. Sixteen new large buildings, including an administration building, post exchange, Red Cross recreation hall, two gymnasiums, eight classroom buildings, and a central heating plant are being constructed or will soon get underway. All will be fireproof and of concrete construction. Seventy-one former barrack buildings are being converted into hospital wards and equipped with sprinkler systems and fire escapes.

Additional large buildings on the post will be converted into physical reconditioning, shop, physiotherapy, library, and music studio space. Classroom and shop space will be used both for occupational therapy and for teaching new trades and giving refresher courses in old trades to men who are to be discharged.

. . .

Mr. Max Wilner, chairman of the Board of Trustees of the Hospital for Joint Diseases, announces that Mr. Frederick Brown, the president of the Hospital, created the Mr. and Mrs. Frederick Brown Orthopedic Research Fellowship by an initial contribution of $7,500 on the occasion of his seventy-fifth birthday. Immediately after the war and as soon as young physicians return from military service, the hospital will begin awarding the research fellowship to carefully selected candidates to be nominated by a Committee on Awards. The Committee consists of Mr. Brown, president of the Hospital; Mr. Max Wilner, chairman of the Board; Mr. L. F. Rothschild, treasurer; Dr. A. J. Beller, president of the Medical Advisory Board; Dr. Henry L. Jaffe, director of laboratories; and Dr. J. J. Golub, director of the Hospital.

Under the terms of the fellowship the recipients of the awards will be chosen without regard to race, creed, or color. Applicants must be graduates of grade-A medical schools, and must have completed previous internships and approved residencies. The selection will be made on a merit basis, the qualifications being essentially scholarship, previous training, and research tendencies.

. . .

Plans for the new Kenmore Mercy Hospital were shown and details of the $250,000 building fund drive in April were discussed at a meeting attended by about fifty northern area physicians, on March 20, in Mercy Hospital, Buffalo. Dr. Daniel E. Stedem, chairman of the professional committee, presided.

. . .

Seventeen institutions received bequests aggregating more than $1,500,000 from the estate of Clarion B. Winslow, late executive of F. W. Woolworth Co., according to an estate tax appraisal filed on March 27. Principal legatees were the White Plains Hospital Association, with $497,661, and the White Plains Y.M.C.A., with $347,661.*

. . .

Stating that he wanted to do something for the village that "had been so good to me," Dr. Devillo N. Bulson, Rockville Centre physician, banker, and civic worker, in his will named the Mercy Hospital Association and the South Nassau Communities Hospital as two of his beneficiaries.*

. . .

George Rosenberg, founder of Rex Products Corporation and vice-president of the firm, has made a donation of $10,000 to New Rochelle Hospital's $750,000 building fund campaign, it has been announced.

A check in that amount was turned over to Alex E. Norton, hospital superintendent, and Campaign Director A. R. Williams by Mr. Rosenberg.

In addition to making this cash contribution, Mr. Rosenberg has also accepted the chairmanship of a special gifts committee and has personally undertaken the solicitation of forty to fifty prospects.*

. . .

Two hundred volunteers in New Rochelle Hospital's $750,000 building fund campaign formally launched their drive in March at a dinner meeting at Wykagyl Country Club.

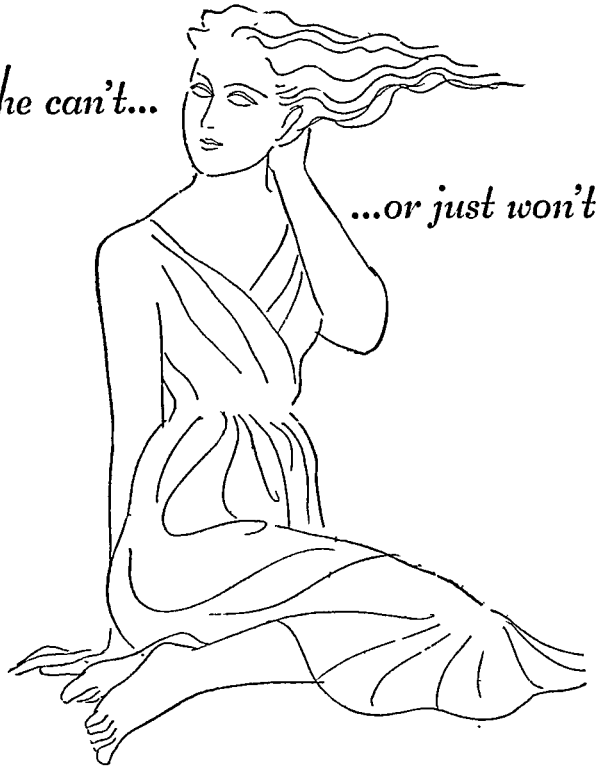
Samuel F. McDonald, chairman of the campaign, announced that contributions totaling $63,267 have already been received. Of that amount, he said, $30,000 came from members of the board of governors and $15,000 from the doctors.

The volunteers heard hospital officials discuss the building program from the standpoint of the hospital's present and future needs and received instructions and advice on how to make their solicitations.

The campaign seeks funds to build a $250,000 seven-story addition immediately and a new south wing within the next two years, or as soon as possible.*

when she can't...

...or just won't



So many pregnant women can't—or just plain won't—drink milk in sufficient quantity to meet their calcium requirements, that nutritive prophylaxis is frequently indicated. For simple routine to assure adequate intake of calcium, phosphorus and vitamin D, prescribe 2 capsules of Squibb Dicalcium Phosphate with Viosterol t. i. d. in conjunction with dietary adjustment. This recommended dosage supplies a total of 7.8 grains of calcium (in itself about one-half the total daily requirement) and an adequate amount of vitamin D to assure its utilization.

Dicalcium Phosphate Compound

WITH VIOSTEROL

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MANUFACTURING CHEMISTS TO THE MEDICAL PROFESSION SINCE 1858

Honor Roll

Medical Society of the State of New York

Member Physicians in the Armed Forces

(By County Societies)

Supplementary List*

Bronx County

Rosner, Samuel (Lt.)

Erie County

Presant, Herman M. (Lt.)

Kings County

Aaron, Jules B. (Capt.)
Katz, Seymour (Maj.)
Matlin, Paul (Capt.)
Netzer, Solomon (Maj.)
Weisberg, Aaron (Capt.)

Monroe County

Howland, Joe W.

Nassau County

Jennings, Eugene, Jr. (Lt.)

New York County

Brandt, Frederic C. (Lt.)
Carra, Angelo D. (Lt.)
Deddish, Michael R.
Edlich, Theodore J., Jr. (P.A. Surg. (R) USPHS)

Ontario County

Constantine, Oleinick (Capt.)
Landers, Philip H. (Lt.)

Oswego County

Steinitz, Gerard (Lt.)

Queens County

Spitzer, Joseph M. (Maj.)

* This list is the thirty-third supplement to the Honor Roll published in the December 15, 1942 issue. Other supplements appeared in the January 1, January 15, February 15, March 1, March 15, April 15, June 1, July 1, August 1, September 1, October 15, November 15, December 15, 1943, January 15, February 1, February 15, March 1, May 1, May 15, June 1, July 1, July 15, August 1, September 1, October 1, November 1, December 1, 1944, January 1, February 1, March 1, April 1, and May 1, 1945, issues.—*Editor.*

SULFA DRUGS FOUND TO HELP LEPROSY CASES

Leprosy may be brought under control in the British West Indies within the next twenty years through a program of public-health education, surveys and isolation, and treatment of the disease itself, Dr. Ernest Muir, medical secretary of the British Empire Medical Relief Association, told members of the American Mission to Lepers on February 8.

Dr. Muir is in New York en route back to England after passing four years at the leper hospital in Trinidad. He said experiments are under way there with two drugs of the sulfa family, promin and diasone. He called both "promising leads," though neither is a specific cure for the disease, any more than is the older chaulmoogra oil treatment. However, the drugs seem to aid in clearing up the ulcers peculiar to the disease.

"Leprosy," Dr. Muir declared, "is not the fearsome plague it has been pictured to be. It is not highly infectious like smallpox and is not necessarily fatal. It may be cured just as tuberculosis is curable; and, in fact, known cures have been made within a short time as with tuberculosis. Sometimes the disease has even seemed to cure itself, as the discovery of its presence is only detected after death."

Because the progress of the disease depends to some extent on the general health of the patient, Dr. Muir explained that occupational therapy is practiced in leprosariums, so that patients may be kept as healthy and happy as possible.

Leprosy thrives in conditions of poverty, undernourishment, congestion, and unsanitary surroundings, and while not originally a tropical disease it is on its way toward becoming one, Dr. Muir said, because it is in these areas that such conditions are most prevalent. The Empire Medical Relief Association, according to Dr. Muir, has been following a policy of educating doctors and lay personnel in recognition and treatment of the disease in those parts of the British Empire where it is endemic.

He stressed that, in the future, the problem must be dealt with on a regional basis, since infected persons, some of whom do not even know they have the disease, have been known to pass immigration officials with ease.

In Trinidad Dr. Muir organized a system under which each district medical officer came to the leprosarium for three months of study. After the officer had been there for two weeks Dr. Muir would leave the hospital and go to his district to make surveys, particularly among school children. In one school 4 per cent of the student body was infected, he said. Clinics were then set up where the local officer could treat those who were not ill enough to be sent to the hospital.

The American Mission to Lepers is conducting a campaign to raise $500,000 from voluntary subscriptions for the financing of a five-year postwar antileprosy program in eight foreign countries where the disease is most widespread. Chairman of the meeting was Dr. William Jay Schieffelin, chairman of the American mission.—*N.Y. Herald Tribune, Feb. 9, 1945*



WHEN WILL IT *Erupt?*

NO ONE CAN FORECAST the time when a volcano will become dangerously active nor the hour of a peptic ulcer attack

However, when peptic or duodenal ulcers do act up, medical consensus favors conservative measures.. including strict dietary regimen and the administration of adsorbents, demulcents and protectives

BISMAKAOLIN, exhibiting the known therapeutic efficacy of bismuth and kaolin, protects eroded surfaces provides adsorbent and detoxicant action in the treatment of chronic ulcerative colitis

For dependable and efficient medication in certain stomach and bowel conditions where surgical intervention is contraindicated, specify

BISMAKAOLIN

Available in bottles containing one pint

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ALLENTOWN • PENNSYLVANIA

Woman's Auxiliary

To the Medical Society of the State of New York

County News

Broome County. The Woman's Auxiliary to the Broome County Medical Society held its March meeting in the Nurses' Home of the Wilson Memorial Hospital in Johnson City, with Mrs. Manuel Monserrate presiding at the business session.

Mrs. William E. Low, program chairman, introduced Miss Beatrice E. Ritter, R.N., director of nursing at the City Hospital in Binghamton, who reviewed the book, "Anything Can Happen." Miss Frances Van Campen, a student nurse at Wilson Memorial Hospital, rendered two piano selections during the evening.

Mrs. Raeburn Wharton was in charge of the refreshment committee.

Members of the county society were guests at a dinner dance held at the Arlington Hotel in Binghamton on April 18.

Erie County. Mrs. Edwin Griffin was installed as president of the Woman's Auxiliary to the Medical Society of the State of New York at a meeting of the executive board held April 30 and May 1 at the Hotel Statler in Buffalo. Mrs. Griffin succeeds Mrs. Carlton E. Wertz in the office of state president.

On April 30 the Executive Board was honored to have Mrs. David W. Thomas, national president, as its guest at a dinner in the Georgian Room of the Hotel Statler. Dr. Carlton E. Wertz and Dr. Abraham H. Aaron were guest speakers.

During the final day of the meeting Mrs. Griffin was installed as president, Mr. Harold Jarvis, executive secretary of the Erie County Medical Society, addressed the board members, and the Honorable Victor B. Wylegala spoke to them on the subject of juvenile delinquency.

Mrs. William Rennie was general chairman of arrangements for the meeting.

On May 3 Mrs. Allen E. Richter entertained the American Red Cross knitting group of the Erie County Auxiliary at her home. Mrs. Arthur R. Gibson will be the next hostess.

The next auxiliary meeting will be held on May 29 with Dr. Leslie A. Osborn, psychiatrist, as the guest speaker.

In cooperation with the Medical Society, the Woman's Auxiliary to the County of Erie Medical Society sponsored a cancer education meeting on April 18 at the Hotel Statler. Mrs. Carlton E. Wertz, former president of the Woman's Auxiliary to the Medical Society of the State of New York, headed the reception committee for the meeting.

Dr. Louis C. Kress, state director of cancer control, spoke and a group of medical authorities on malignant diseases conducted a panel discussion. The meeting was open to the public.

The special committee of the Woman's Auxiliary for the Cancer Control meeting was headed by Mrs. Jesse G. Levy. Others on the committee were Mesdames Fraser D. Mooney, William H. Handel, Allen E. Richter, Charles R. Borzilleri, Jr., Milton E. Kahn, Patrick J. Hurley, Joseph S. Tumiel, Ira C. Woolen, Lewis F. McLean, William Clark, Henry H. Goldstein, Louis A. Kaiser, William Rennie, John D. Naples, and Dexter S. Levy.

The regular luncheon meeting of the county auxiliary was held in the Chinese Room of the Hotel Statler on April 24. Mrs. Eleanor Chilcott, of the House of Stuart, gave a cosmetic demonstration, and gifts were presented to holders of lucky numbers.

Oneida County. The Woman's Auxiliary to the Medical Society of the County of Oneida held a luncheon meeting on April 10 at the Officers' Club of the Rome Army depot with twenty-six members attending.

Colonel Harbiman welcomed the guests, after which there was a brief business meeting presided over by Mrs. Bradford Golly, of Rome.

The guest speaker, Captain Richard Richards, gave a most interesting talk on "Juvenile Delinquency." The annual meeting of the auxiliary was held in Utica in May.

AMERICAN PSYCHIATRIC ASSOCIATION ANNUAL CONVENTION CANCELED

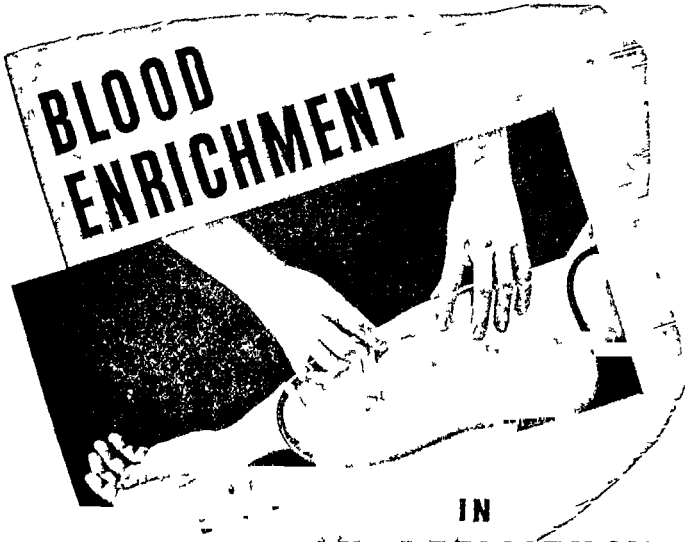
The American Psychiatric Association, the oldest medical society in America, has announced the cancelation of their one hundred and first annual meeting, which was to have been held in Chicago, in May of this year. It was the feeling of the Association that it would be the duty of the membership to fall in line with the request of the United States government to cancel conventions in the spirit of the war cooperation.

There will be a meeting of the Councillors of the American Psychiatric Association on February 26 and 27 to devise the means of taking care of urgent business of the Association arising out of the cancelation of the annual meeting.

The Association has been extremely active in war psychiatry during the past two years and the councillors of the Association will formulate plans for continuing the contribution made by members of the Association toward the advance of the war effort.

The Association was founded in 1844, the first meeting being held at the Jones Hotel, Philadelphia, on October 16, 1844.

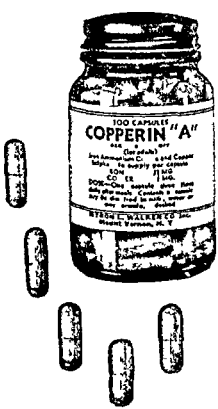
Meetings of the organization have been held annually with the exception of 1861, during the outbreak of the Civil War, when it was recorded, "no meeting held on account of the disturbing conditions of the country."



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Books

Books for review should be sent to the Book Review Department at 1313 Bedford Avenue, Brooklyn, N. Y. Acknowledgment of receipt will be made in these columns and deemed sufficient notification. Selection for review will be based on merit and interest to our readers.

RECEIVED

All About Feeding Children. By Milton J. E. Senn, M.D., and Phyllis Krafft Newill. Octavo of 269 pages. Garden City, Doubleday, Doran & Co., 1944. Cloth, $2.50.

The Abortion Problem. Proceedings of the Conference Held Under the Auspices of the Committee on Maternal Health, Inc., At the New York Academy of Medicine, June 19 and 20, 1942. Editorial Committee, Earl T. Engle, Ph.D., and others. Octavo of 182 pages, illustrated. Baltimore, Williams & Wilkins Co., 1944. Cloth, $2.50.

The 1944 Year Book of Industrial and Orthopedic Surgery. Edited by Charles F. Painter, M.D. Duodecimo of 432 pages, illustrated. Chicago, Year Book Publishers, Inc., 1945. Cloth, $3.00.

Microbiology and Pathology. By Charles F. Carter, M.D. Third edition. Octavo of 777 pages, illustrated. St. Louis, C. V. Mosby Co., 1944. Cloth, $3.50.

Modern Methods of Amputation. By Edmundo Vasconcelos. Translated from the Portuguese by Walter Ratto. With an Introductory Survey of the Development of Amputation. By Maj. Gen. Norman T. Kirk (MC), Surg. Gen., U.S. Army. Quarto of 253 pages, illustrated. New York, Philosophical Library, 1945. Cloth, $10.

The Marihuana Problem in the City of New York. Sociological, Medical, Psychological and Pharmacological Studies. By the Mayor's Committee on Marihuana. Octavo of 220 pages, illustrated. Lancaster, Jaques Cattell Press, 1944. Cloth, $2.50.

A Textbook on Pathology of Labor, the Puerperium, and the Newborn. By Charles O. McCormick, M.D. Octavo of 399 pages, illustrated. St. Louis, C. V. Mosby Co., 1944. Cloth, $7.50.

REVIEWED

Principles and Techniques of Nursing Procedures. By Sister Mary Agnita Claire Day, R.N. Octavo of 574 pages, illustrated. St. Louis, C. V. Mosby Co., 1943. Cloth, $3.50.

This is a carefully compiled work for the preclinical student nurse. The material is well planned and organized with emphasis on the important parts of the technics and procedures. The illustrations are well done and adequate in number and show that considerable thought has been given to them. The steps in procedures as outlined can be followed without difficulty. The book has a good public health attitude; the patient is considered as an individual and not as just a condition. The book would make an excellent text and certainly should be used as a reference work. The bibliographies at the end of each unit are helpful for further study.

MARIE M. BEHLAN

Diseases of the Digestive System. Edited by Sidney A. Portis, M.D. Second edition. Octavo of 932 pages, illustrated. Philadelphia, Lea & Febiger, 1944. Cloth, $11.

This is the second edition of an important work, including contributions from fifty outstanding men each a specialist in his field. The chapter on the "Physiology of the Liver, Bile, and Gall Bladder" by A. C. Ivy and the one on "Diseases of the Liver" by Sidney A. Portis make the book worth possessing. The volume is packed with detailed information concerning gastrointestinal diseases, and references to very recent literature are well documented. The chapter on "Psychosomatic Disturbances" is interesting, although the theory of the cause of ulcer expounded by Franz Alexander will be accepted with difficulty by most gastroenterologists.

On the whole it is a complete résumé of the knowledge accumulated by the important workers in the field of gastroenterology. As an authoritative textbook its status is secure.

HENRY F. KRAMER

The Blood Pressure and Its Disorders Including Angina Pectoris. By John Plesch, M.D. Octavo of 149 pages, illustrated. Baltimore, Williams & Wilkins Co., 1944. Cloth, $4.50.

The author divides this book into three parts: (1) The arterial blood pressure, (2) the venous pressure, and (3) angina pectoris. However, approximately half of the book is devoted to the arterial blood pressure, and the greater part of this section is used to describe the tonoscillograph in which the author is greatly interested.

The author's style of writing makes it difficult for the reader to follow him, especially as his ideas are frequently not those which are most generally accepted.

VICTOR GROVER

The Urinary Tract. A Handbook of Roentgen Diagnosis. By H. Dabney Kerr, M.D., and Carl L. Gillies, M.D. Duodecimo of 320 pages, illustrated. Chicago, Year Book Publishers, Inc., 1944. Cloth, $5.50.

A wealth of knowledge is presented in this book in a clear and concise form. Illustrations are plentiful, of excellent quality, and most informative; legends are found conveniently near each picture, printed in legible type and worded carefully. As the authors exhibit remarkable talent for teaching, the book will be very useful for novice roentgenologists, for medical students, and also for nonroentgenologists.

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[Continued on page 1260]

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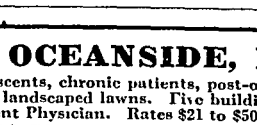
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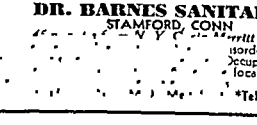
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[Continued from page 1258]

between the urologist and the roentgenologist. The step-by-step x-ray appearance of the urethra after the different stages of transurethral resection should be of interest even to many experienced roentgenologists; and many a urologist may receive valuable suggestions as to what help may be expected from a cooperative roentgenologist.

In a later edition we would advise adding a chapter on excretion urography with particular reference to its advantages and disadvantages in comparison with retrograde urography.

S. W. WESTING

Manual of Urology. By R. M. LeComte, M.D. Third edition, revised. Octavo of 305 pages, illustrated. Baltimore, Williams & Wilkins Co., 1944. Cloth, $4.00.

This is the third edition of a manual primarily written for the medical student and general practitioner. It furnishes the fundamentals of all the common urologic diseases and includes the cause, pathologic anatomy, symptoms, differential diagnosis, prognosis, and treatment. The surgical procedures are indicated but are not described in detail. This newest edition includes the advances made in chemotherapy, a section on injuries to the genitourinary tract, and a chapter on pain and associated reaction.

This book is well written and will be appreciated by the student and practitioner and will answer their questions satisfactorily and quickly.

PHILIP GOLDFADER

Principles and Practice of Surgery. By W. Wayne Babcock, M.D. With the collaboration of 37 members of the faculty of Temple University. Quarto of 1,331 pages, illustrated. Philadelphia, Lea & Febiger, 1944. Cloth, $12.

This volume is particularly designed for students and practitioners, as it attempts to include in one number the basic principles of surgery and the more recent advances in surgical diagnosis and treatment. Although many of the sections are brief when they pertain to basic principles, nevertheless, sufficient underlying principles in surgery are included to make it extremely valuable both to the student and for ready reference by the general practitioner and surgeon.

The section on traumatic surgery is up to date and many of the new methods of treatment are stressed. The section on infections adequately presents the modern concept of the treatment of these problems. Surgical technic is well illustrated and amply discussed to be a sufficient guide as a ready reference. The illustrations and bibliography are very well presented.

IRWIN E. SIRIS

The Medical Clinics of North America. Boston Number. September, 1944. Octavo, illustrated. Philadelphia, W. B. Saunders Co., 1944. Published bimonthly (six numbers a year). Cloth, $16 net; paper, $12 net.

This symposium can be described as excellent. The articles are all timely, well written, and authoritative. The subjects include the treatment of staphylococcic infections, pneumonia, the use of thiouracil, and many problems of present-day interest. The authors are all well recognized in their respective fields. The result is a volume which can be highly recommended to the general practitioner and specialist.

VICTOR GROVER

Atlas of the Blood in Children. By Kenneth D. Blackfan, M.D., and Louis K. Diamond, M.D. Quarto of 320 pages, illustrated. New York, The Commonwealth Fund, 1944. Cloth, $12.

This excellent book will undoubtedly enjoy a well-deserved and universal popularity. It contains a mine of meaty information in a palatable and quickly assimilable form. The numerous comprehensive plates resemble color photographs, and were painstakingly drawn by hand with no effort spared to insure accuracy. They beautifully and faithfully portray every cellular detail so that the use of these plates will be invaluable when the problem arises of identifying puzzling blood cells encountered on smears of blood or bone-marrow. The text is written in terse but interesting and lucid style, and each of the plates is fully and authoritatively explained. Since the information and plates are useful in the study of the blood of adults as well as children, every physician should obtain a copy of this book, if he can do so before the edition is exhausted, as it undoubtedly quickly will be.

A. S. WIENER

The Woman Asks the Doctor. By Emil Novak, M.D. Second edition. Octavo of 130 pages, illustrated. Baltimore, Williams & Wilkins Co., 1944. Cloth, $1.50.

The necessity for a second edition of this small volume published for the laity attests to its usefulness and popularity, although this edition has been somewhat abridged due to wartime restrictions. However, the important subjects which appeal mostly to the average intelligent lay woman have been retained. It is illustrated with simple line drawings which are quite a help to the understanding of the subject matter. Figures 3 and 5 have been erroneously exchanged, but this is barely noticeable except on close scrutiny. The fifteen chapters, lucidly written and authoritatively explained, cover the range of female anatomy, physiology, and pathology from puberty to the menopause.

This book is highly recommended to the woman who wishes to understand her own body and her sex life.

J. HALPERIN

Control of Pain in Childbirth. Anesthesia. Analgesia. Amnesia. By Clifford B. Lull, M.D., and Robert A. Hingson, M.D. Octavo of 350 pages, illustrated. Philadelphia. J. B. Lippincott Co., 1944. Cloth, $7.50.

This book is an excellent and very comprehensive compilation of up-to-the-minute information of great value to the obstetrician. Caudal anesthesia in particular is very well covered, yet as much can be said for all other forms of anesthesia and analgesia. The experience and prominence of the authors, their simple, easy style, and the handsome illustrations make this book very much worth while. Every serious practitioner of obstetrics will enjoy this book and profit much by reading it.

CHARLES A. GORDON

Soldier to Civilian. Problems of Readjustment. By George K. Pratt, M.D. Octavo of 233 pages.

[Continued on page 1262]

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The trouble is: when most of these nurses were getting their training we weren't figuring on another world war with hundreds of thousands of sick and wounded servicemen to be looked after. And our standards as to the number we ought to be employing in civilian nursing work were so low—well, it was practically rock-bottom minimum. That's why, when the war takes so many of 'em, it leaves us pretty well strapped, so far as civilian service is concerned.

Around seven thousand nurses from New York State have gone into military service already, so I'm told. And still they haven't got anywhere near enough. This Procurement and Assignment Service (of the War Manpower Commission): their job is to see that the armed services get the nurses they need but also to see that essential civilian services are maintained.

Naturally, the armed services head the priority list. But public-health nursing is war work, too (and, for that matter, the instruction of nurses in the first place) and it's high up on the list. Preventing the spread of communicable diseases, looking after the wives and babies of servicemen, keeping health conditions at a safe level on the home front—it all contributes to manpower and morale, and lessens the likelihood of interruption of the flow of war supplies. Without the public-health nurses we can't do any of those things effectively.

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[Continued from page 1260]

New York, McGraw-Hill Book Co., 1944. Cloth, $2.50.

The author of this timely book speaks from a wealth of experience in the skillful manipulation of the working tools of understanding and ameliorating the manifold problems in adjusting the civilian to military life and his return to civilian status. The book is written in an easy, flowing style with the use of terms so well chosen that the meaning is effectively brought home to the reader, be he physician, relative, friend, or employer.

The contents critically evaluate in a practical fashion the equipment the soldier took with him into service, what the military experience did to him, and how the army prevents strains of adjustment. The chapter dealing with soldiers with psychiatric disabilities is of particular interest to every physician. Since approximately 45 per cent of those discharged from the army are released for neuropsychiatric disabilities, every physician must be adequately professionally attuned to this number-one health problem of our returning men. The family *and relatives will profit by the chapter on* "The First Weeks at Home" and "Getting Reacquainted with the Family." The employer will need to grasp the significance of the chapter on "Going Back to Work." There is an appendix, "Community Services for Veterans," which makes known all types of community services aiding information service centers in assisting returning men and women to civilian life. Dr. George S. Stevenson, Medical Director for the National Committee for Mental Hygiene, keynotes the book with a pithily formulated foreword. Our responsibility in understanding and serving the needs of returning servicemen and -women needs the enlightened experience-determined assistance which this practical and scientific book offers to all of us.

FREDERICK L. PATRY

Handbook of Diagnosis and Treatment of Venereal Diseases. By A. E. W. McLachlan, M.B. Duodecimo of 364 pages, illustrated. Baltimore, Williams & Wilkins Co., 1944. Cloth, $5.00.

This concise work of some 350 pages is intended primarily for the medical student and the clinical practitioner. Venereal diseases only are considered—the major portion of the work is devoted to the study of syphilis in all stages. The book is fully and clearly illustrated, adding greatly to the value of the text. Despite the fact that it is is a new publication nothing is given concerning the penicillin treatment of gonorrhea. The various tabulations included in the work are valuable. The author is to be commended for his contribution to the diagnosis and treatment of venereal diseases.

AUGUSTUS HARRIS

Textbook of General Surgery. By Warren H. Cole, M.D., and Robert Elman, M.D. Fourth edition. Octavo of 1,118 pages, illustrated. New York, Appleton-Century Co., Inc., 1944. Cloth, $10.

The fourth edition of this *Textbook of General Surgery* is the product of careful and competent research by the authors and consulting authors. The job has been well done and the subject matter brought up to date.

As would be expected because of military medical activity, war surgery has been amplified. This is a most fortunate amplification of the text and has been well done. It is refreshing to see again entire chapters contributed by outstanding, able surgeons throughout the United States.

This text is for the student and the surgeon and we trust that the surgeon will always be a student. In detail and in arrangement the subject matter is well suited to students, surgeons, and general practitioners. There are many parts of the text so ably written as to be without equal. We recommend without qualification the entire text to the medical profession.

ROBERT F. BARBER

Traumatic Injuries of Facial Bones. An Atlas of Treatment. By John B. Erich, D.D.S., M.D., and Louie T. Austin, D.D.S. In collaboration with the Bureau of Medicine and Surgery, U. S. Navy. Octavo of 600 pages, illustrated. Philadelphia, W. B. Saunders Co., 1944. Cloth, $6.00.

Traumatic Injuries of Facial Bones by Dr. John B. Erich and Dr. Louie T. Austin is a compact and informative atlas which ought to be available to those surgeons who are called upon to treat injuries of that nature. At the expense of repetition, each problem is handled in detail with adequate semidiagrammatic photographs and explanatory notes sufficient to enable the man inexperienced in this field to cope with the many situations that may arise. The use of many dental and surgical appliances in conjunction with good surgical principles should recommend reference to this book to those who have had a fair background in maxillofacial surgery.

DAVID TEPLITSKY

Clinical Cystoscopy. A Treatise on Cystoscopic Technic, Diagnosis, Procedures, and Treatment. By Lowrain E. McCrea, M.D. Drawings by B. Engle Shaffer. Two volumes. Large octavo of 1,056 pages, illustrated. Philadelphia, F. A. Davis Co., 1945. Cloth, $25.

This two-volume work is printed on fine paper and the color plates, black-and-white illustrations, and photographs of bladder lesions are all excellent.

This book is a valuable urologic museum. It presents the clinical observations on diagnosis, management, and treatment of most urologic conditions. It is replete with classically sound advice for average cases. It belongs in any complete library and will be especially useful for the practitioner in small hospitals in small places.

The complete schematic presentation of the various topics will be of great aid to any teacher, and to students. There is a chapter on medical diseases of the kidney, one on urology in women, and another on urology in children.

The statements are made in clear, simple words with no complex phraseology, and while one may question their entire accuracy, still this is a better way to write such a book than to present a hundred latest theories and let the student or general surgeon take his choice.

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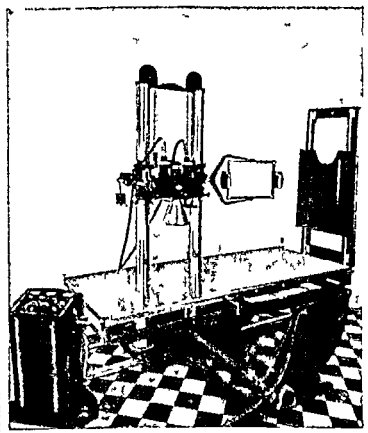
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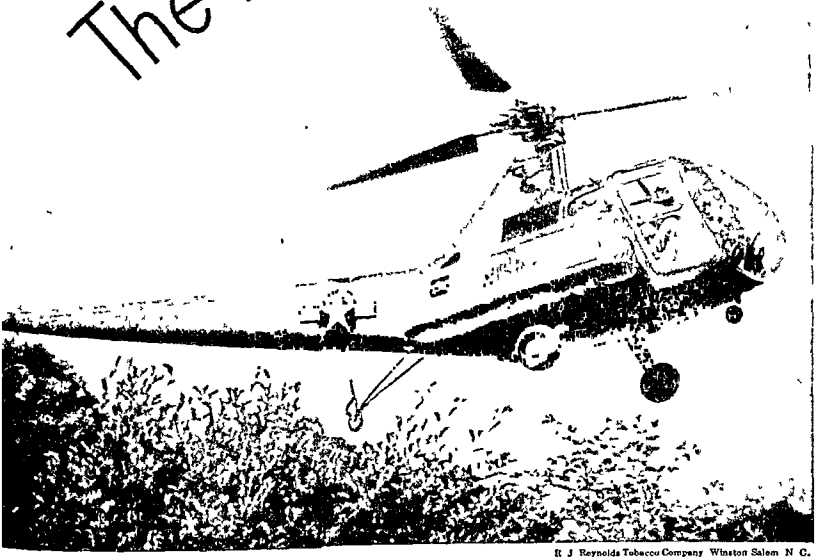




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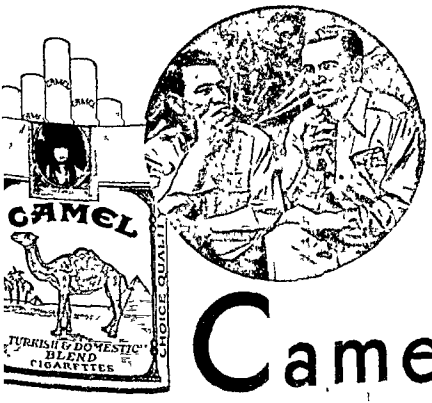
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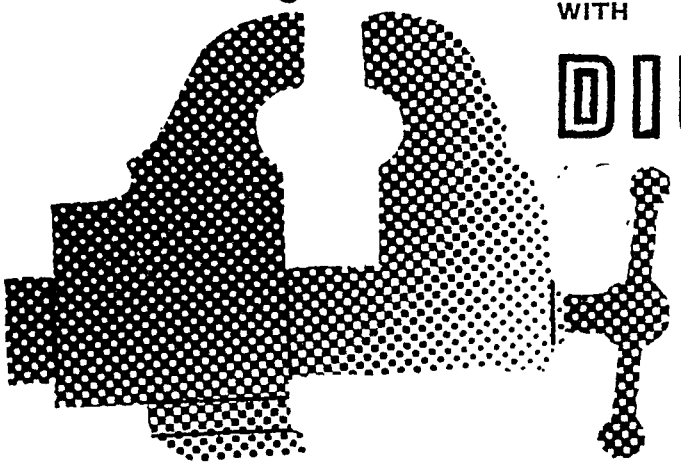
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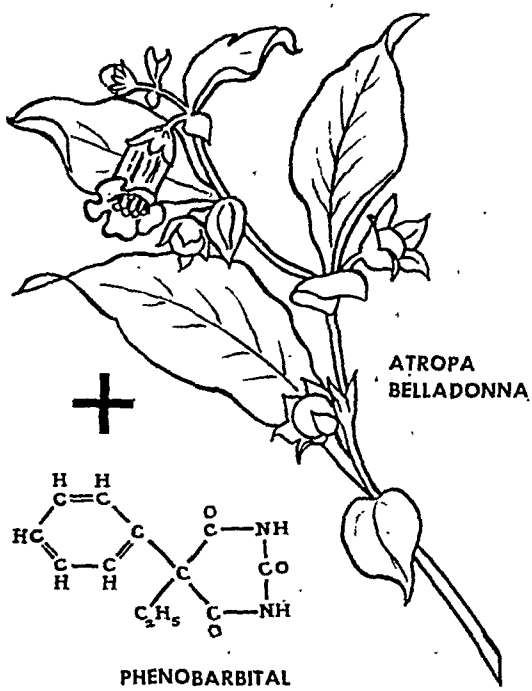
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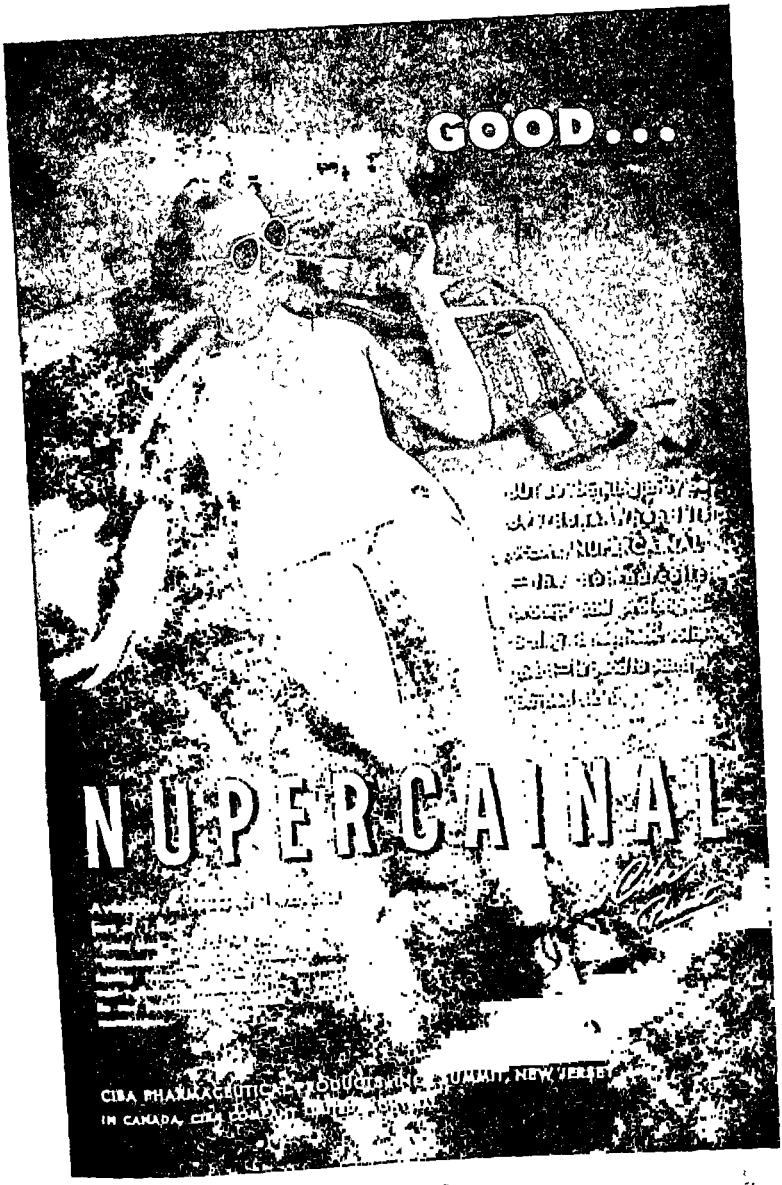
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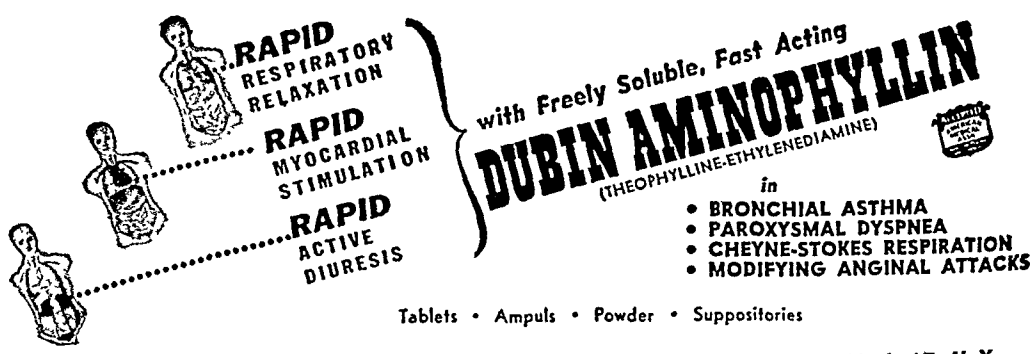
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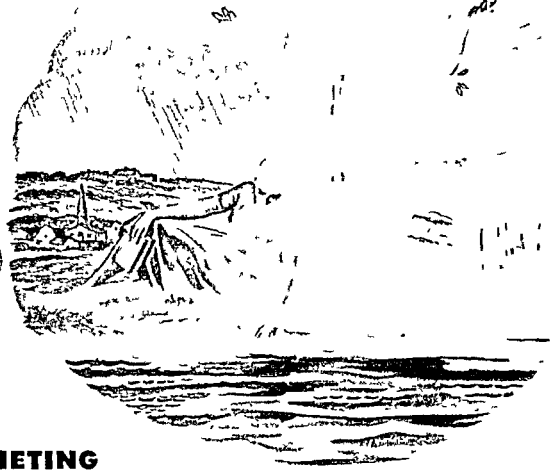
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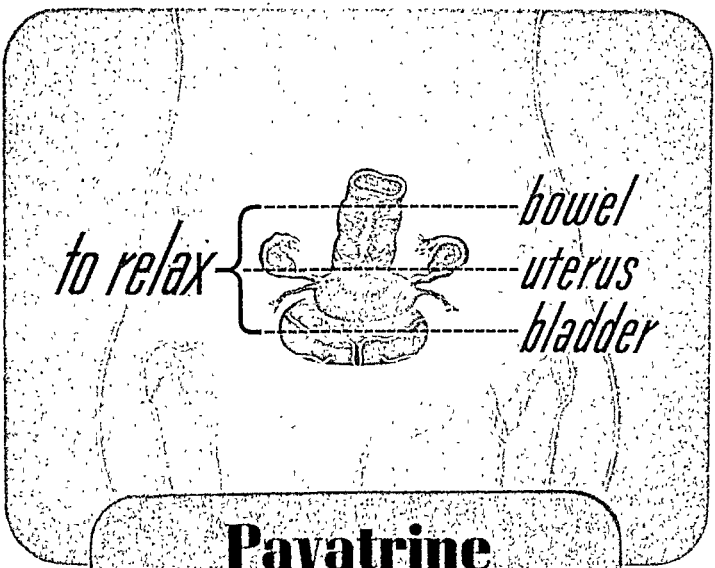
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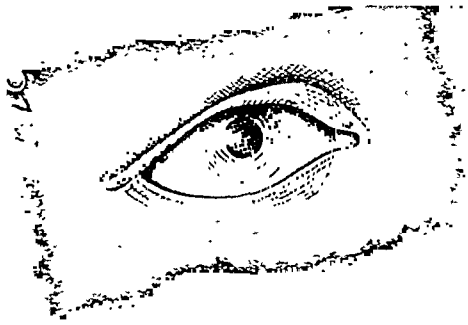
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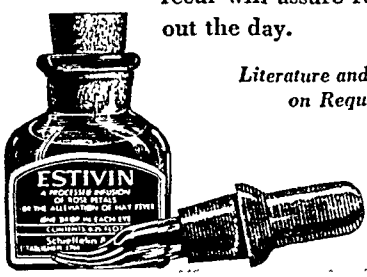


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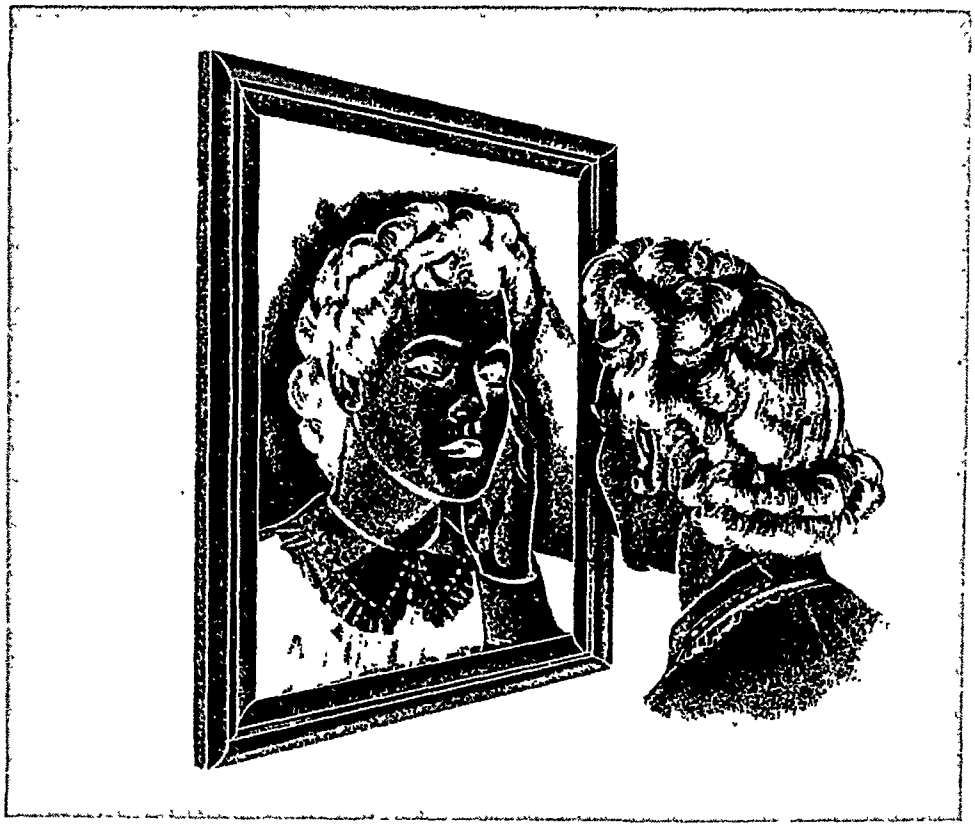
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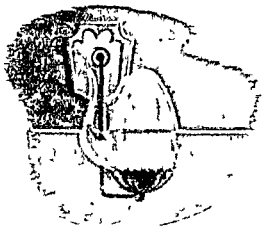
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In chronic hypotension or states of circulatory deficiency associated with convalescence, mild collapse, and other asthenic states, Sympatol provides convenient symptomatic therapy. Orally effective, Sympatol improves the peripheral circulation by raising systolic and venous pressure and increasing cardiac output Circulation time is shortened although the pulse rate is frequently slowed

Sympatol

To Improve Peripheral Circulation

THERAPEUTIC APPRAISAL A synthetic pressor drug,—para methylamino ethanolphenol tartrate—for providing safe circulatory stimulation Sympatol on oral administration increases venous and systolic pressures significantly diastolic pressure only slightly with little or no effect on the central nervous system Repeated doses are consistently and uniformly effective

INDICATED for symptomatic treatment of circulatory atony—to improve peripheral circulation to increase cardiac output and shorten circulation time, to increase cardiac efficiency



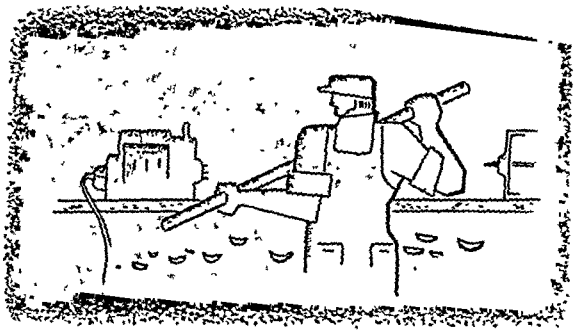
DOSAGE Adults—1 to 3 tablets three times daily or 1 to 2 cc of solution every four to six hours Children—5 to 10 minims of solution repeated as required

SUPPLIED in 100 mg tablets bottles of 50 10% solution (100 mg per cc) for oral use bottles of 30 cc

Frederick Stearns & Company
Division
DETROIT 31, MICHIGAN

NEW YORK KANSAS CITY SAN FRANCISCO WINDSOR ONTARIO SYDNEY, AUSTRALIA AUCKLAND NEW ZEALAND

Trade-Mark Sympatol Reg U S Pat. Off



WITH A

minimum loss of time..

ASPIROCAL

by its combined analgesic-antispasmodic action, promotes quick symptomatic relief in headache, neuralgia, dysmenorrhea and general nervousness, as well as in the common cold and influenza. Aspirocal complies with the requirements for an ethical, non-narcotic therapeutic agent as evidenced by its formula—

EACH TABLET ASPIROCAL COMP. CONTAINS:

Acid Acetylsalicylic..... 4 gr.
Calcium Gluconate..... 2 gr.
Butisol (5-ethyl-5-secondary butyl barbituric acid 'McNeil')....⅓ gr.

Being strictly a prescription product, Aspirocal enables the physician to keep symptomatic relief of pain under his constant supervision.

Supplied in bottles of 100, 500 and 1000 tablets.

We will be pleased to send clinical samples of Aspirocal to physicians on their request. Caution: Use only as directed.

●

McNeil Laboratories
INCORPORATED

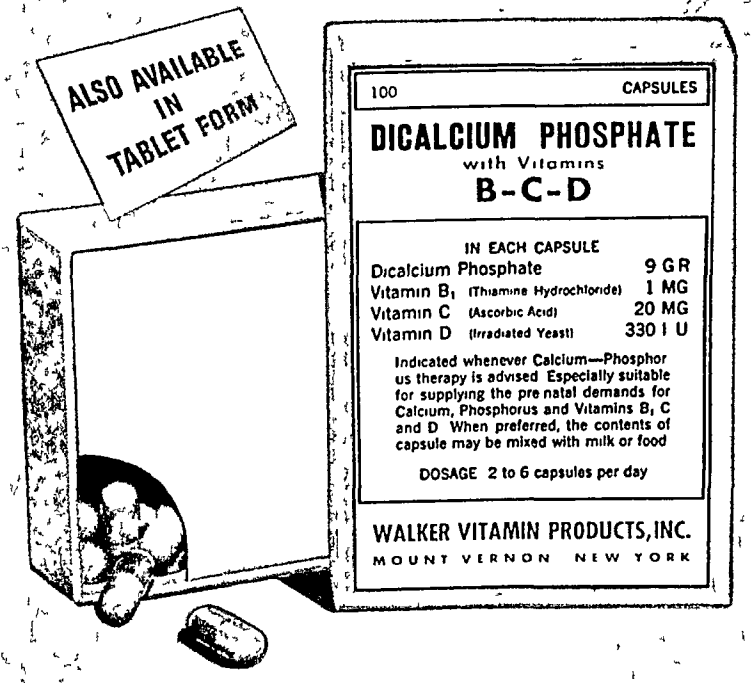
FOR PRENATAL CARE

DURING pregnancy not only must an adequate [illegible] and phosphorus [illegible] a liberal supply of vitamin D for peak calcium metabolism [illegible] vitamin B_1 for sound nerves and the amelioration of hyperemesis gravidarum . . . and vitamin C, to supply the greatly increased requirements of pregnancy and lactation

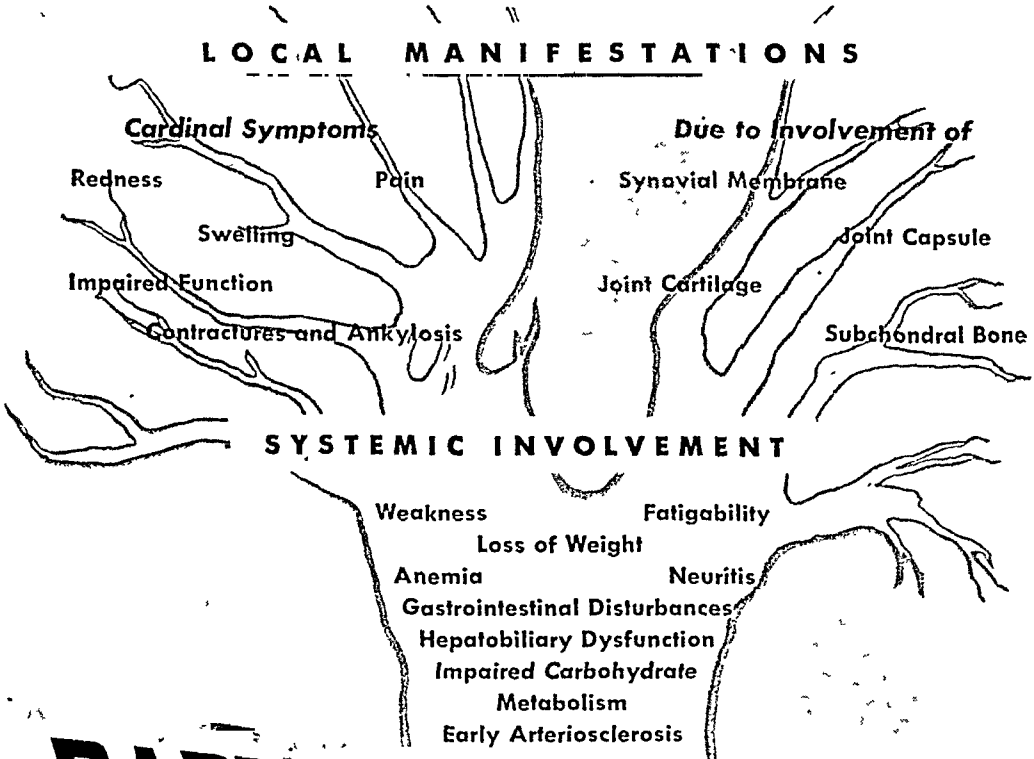
Walker's Dicalcium Phosphate with Vitamins B-C-D provides all these factors in one "single-prescription" product.

Its capsule form eliminates the "chalky" taste of wafer products,—its tolerance is excellent (the Vitamin D [illegible] of irradiated [illegible] the patient is only $1.75 per box of 100 capsules.

***For a trial supply, just write to* WALKER VITAMIN PRODUCTS, INC • MT. VERNON, N.Y.**



Walker's



DARTHRONOL A MULTIPHASIC SYSTEMIC APPROACH

Each Capsule Contains:

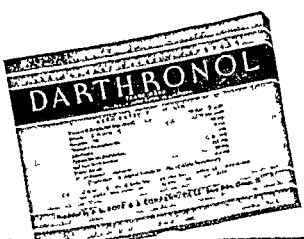
Vitamin D (Irradiated Ergosterol)	50,000 U.S.P. Units
Vitamin A	5,000 U.S.P. Units
Ascorbic Acid	50 mg.
Thiamine Hydrochloride	2 mg.
Riboflavin	1 mg.
Pyridoxine Hydrochloride	0.1 mg.
Calcium Pantothenate	0.333 mg.
Niacinamide	10 mg.
Mixed Natural Tocopherols	3.4 mg.

The systemic phase of arthritis involves many organs and metabolic processes, with the functions of which vitamins are directly concerned. Darthronol, through the combined pharmacodynamic and nutritional influences of its nine constituents, has proved a valuable aid in antarthritic therapy directed at arrest and correction of both the systemic as well as the articular manifestations of the disease.

No single vitamin, regardless of the amount used, can combat all these local and systemic involvements. Only when adequate amounts of all the essential vita-

TO THE MULTIPHASIC INVOLVEMENTS IN ARTHRITIS

mins were administered has optimal improvement of the arthritic, as a whole, been observed. Comprehensive literature will be sent on request.



J. B. ROERIG & COMPANY

536 Lake Shore Drive

Chicago 11, Illinois

DARTHRONOL *for the Arthritic*

a **ROERIG** *Preparation*

S·I·M·I·L·A·C



Similar to human milk

★The name is never abbreviated; and the product is not like any other infant food — notwithstanding a confusing similarity of names.

The fat of Similac has a physical and chemical composition that permits a fat retention comparable to that of breast milk fat (Holt, Tidwell & Kirk, Acta Pediatrica, Vol. XVI, 1933) . . . In Similac the proteins are rendered soluble to a point approximating the soluble proteins in human milk . . . Similac, like breast milk, has a consistently ZERO curd tension . . . The salt balance of Similac is strikingly like that of human milk (C. W. Martin, M. D., New York State Journal of Medicine, Sept. 1, 1932). *No other substitute resembles breast milk in all of these respects.*

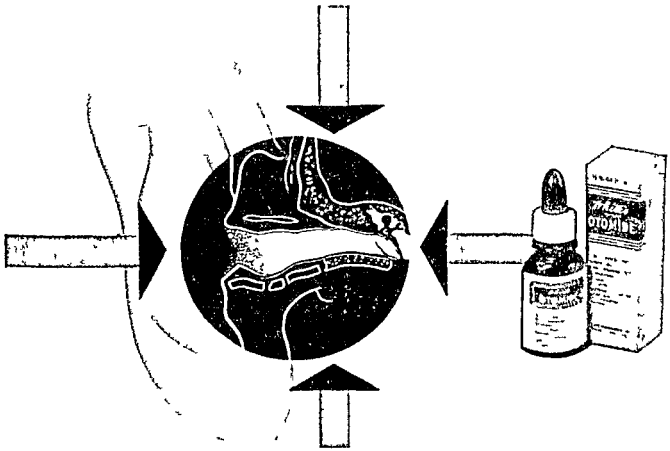
ACCEPTED AMERICAN MEDICAL ASSN. Council on Foods

A powdered, modified milk product especially prepared for infant feeding, made from tuberculin tested cow's milk (casein modified) from which part of the butter fat is removed and to which has been added lactose, olive oil, cocoanut oil, corn oil and fish liver oil concentrate

SIMILAC } SIMILAR TO HUMAN MILK

M&R DIETETIC LABORATORIES, INC. • COLUMBUS 16, OHIO

for BOTH Acute and Chronic
BACTERIAL EAR INFECTIONS



White's OTOMIDE

More effective topical chemotherapy for both acute and chronic ear infections is now provided in the scientific formula of White's Otomide:

FORMULA:

Carbamide (Urea)	10%
Sulfanilamide	5%
Chlorobutanol	3%
Glycerin	q.s.

ACTION:
Effectively antibacterial and analgesic; hypertonic, non-irritating.

ADVANTAGES:
1. Carbamide in association with sulfanilamide enhances *antibacterial activity*, inhibits sulfonamide-antagonists in purulent exudates.

2. Chlorobutanol (therapeutically compatible with sulfonamides) provides effective *local analgesia.*

3. The foul odor and discharge of purulent otorrhea are promptly overcome.

INDICATIONS:
Local prevention and treatment of acute and chronic bacterial infections of the middle ear and external auditory canal.

● White's Otomide is available in dropper bottles of one-half fluid ounce (15 c.c.)—*on prescription only.*

PHARMACEUTICAL WHITE MANUFACTURERS
LABORATORIES, INC.
NEWARK 2, N. J.



"YOU'LL FIND THE SPA A FRIEND IN TIME OF NEED, AS I HAVE"

. . . says the harassed practitioner whose wartime load it has helped to lighten.

Saratoga Spa is accommodating an unusually large number of patients suffering from such conditions as cardiac, vascular or rheumatic disorders which may be aggravated by wartime strain.

A large proportion of these men and women are patients of practicing physicians who have found the treatments here very beneficial to former patients.

The facilities which New York State has erected around the famed mineral waters of the Spa are extensive. They will provide amply for the needs of your own patients for whom restorative treatment is indicated, under regimens of care which you yourself have recommended.

For professional publications of The Spa, and physician's sample carton of the bottled waters, with their analyses, please write W. S. McClellan, M.D., Medical Director, Saratoga Spa, 155 Saratoga Springs, N. Y.

SARATOGA SPA

THE EMPIRE STATE'S CONTRIBUTION TO THE MEDICAL PROFESSION

Designed *to* ASSIST *the* PATIENT



THE "RAMSES"* Diaphragm Introducer, designed after consultation with gynecologists, engages the rim of the 'RAMSES" Flexible Cushioned Diaphragm at two points, shaping it into an elongated oval, thus enabling it to pass readily into the vagina By providing complete control over the direction of travel, the "RAMSES" Diaphragm Introducer assures proper and accurate placement of the diaphragm

1. The wide, blunt tip of the RAMSES Diaphragm Introducer is designed to prevent even the remote chance of accidental penetration of the uterus during insertion of the diaphragm

2. Made of easily cleansed plastic, the RAMSES Diaphragm Introducer has no minute crevices to harbour bacterial growth—no sharp projections to cause possible vaginal injury

3. The broad, rounded hooked end of the RAMSES Diaphragm Introducer—used for diaphragm removal—guards against possible entry into the urethra

Your patients obtain the "RAMSES Diaphragm Introducer when you specify the "RAMSES Physicians Prescriptions Packet No 501

"RAMSES' Gynecological Products are suggested for use under the guidance of a physician only They are available through recognized pharmacies

*The word RAMSES' is the registered trademark of Julius Schmid Inc

ACCEPTED AMERICAL MEDICAL ASSN

Ramses

DIAPHRAGM INTRODUCER

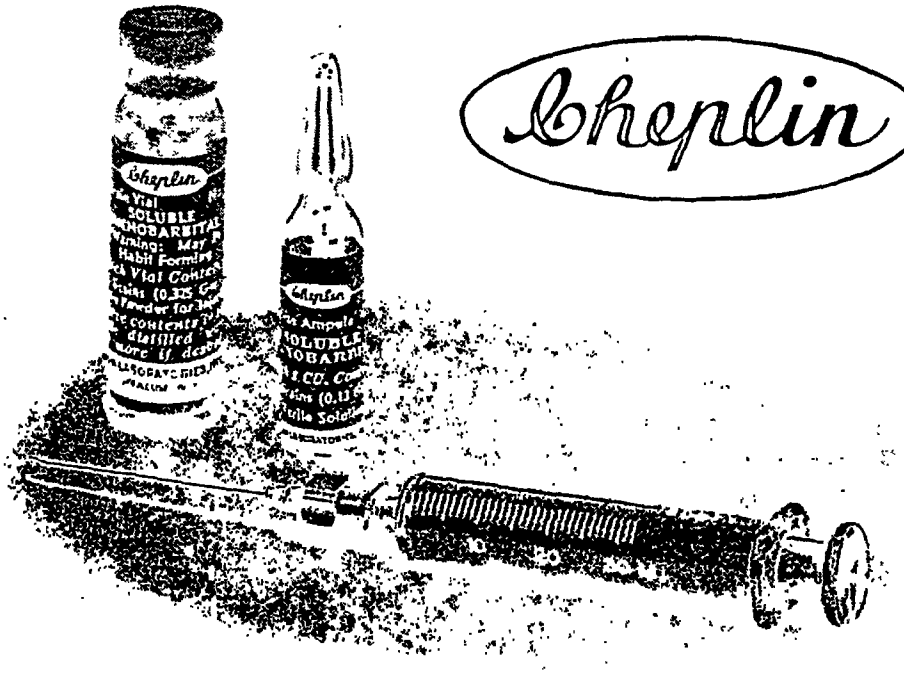
Gynecological Division

JULIUS SCHMID, INC.

Established 1883

423 West 55 St

New York 19, N Y.



Cheplin

PHENOBARBITAL SODIUM

CHEPLIN PHENOBARBITAL SODIUM is supplied as sterile solution in ampules and as sterile powder in rubber-stoppered vials—assuring complete asepsis. Its solubility makes it suitable for subcutaneous and intramuscular injection, or for intravenous use when desired. Indicated as a hypnotic in nervous insomnia, as an antispasmodic in epilepsy and as a sedative in pre- and post-operative cases, as well as in a wide range of conditions. *Literature on request.*

PHENOBARBITAL SODIUM is supplied as POWDER in:
1 gr., 2 gr., and 5 gr. vials

STERILE SOLUTION in:
2 gr. in 2 cc. ampules and
5 gr. in 2 cc. ampules

CHEPLIN
LABORATORIES INC. **SYRACUSE I, NEW YORK**

"The greatest need for calcium and phosphorus is during the period of skeletal growth"

Stearns G Jl. Lancet 63 Nov 1943

Absorption of these vital minerals is inefficient in humans and often non-effective without the aid of vitamin D.

Infron *Pediatric*

(Trade Mark)

provides prophylaxis against rickets and treatment for rickets in effective, convenient, once-a-month dosage

Each capsule of *Infron Pediatric* contains 100,000 U S P. units of electrically activated vaporized ergosterol (Whittier Process)—*highly purified and specially adapted for antirachitic administration*

Infron Pediatric is safe, rational and therapeutically effective as shown in the published work on the clinical investigations of Wolf, Rambar, Hardy and Fishbein

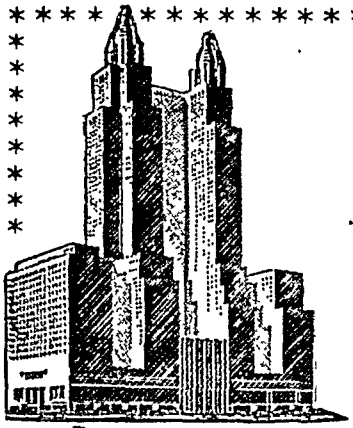
Infron Pediatric is readily miscible in the feeding formula, milk, fruit juice, or water—can also be spread on cereal.

Supplied in packages of 6 capsules—sufficient dosage for 6 months

Available in prescription pharmacies Ethically promoted.

NUTRITION RESEARCH LABORATORIES • CHICAGO

REFERENCES:
Rambar, A.C. Hardy L M and Fishbein W I J Ped 25 31 38 (July) 1943
Wolf I J J Ped 22 707 718 (June) 1913
Wolf, I J J Ped 22 396-417 (April) 1913
Wolf I J J Med Soc New Jersey 8-43[illegible] (Sept) 1941



Prescribed

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No servant problem...
no long-term commitments...safe...centrally located...restful
Special Rates for Long Periods
Facilities for conferences, luncheons, dinners

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Aspirocal (McNeil Labs.) 1282
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WILLIAM S. RICE, Inc., (Lock Box 101), ADAMS, NEW YORK
BRANCH SUPPLY AND FITTING OFFICES
BUFFALO, N. Y.—ROCHESTER, N. Y.—PITTSBURGH, PA.

Announcing

LUSYN

TABLETS

In functional gastro-enteropathies



A rational new application of three distinct components successfully complementing the action of each other, both pharmacologically and therapeutically, has resulted in the formulation of LUSYN in Malthie's research laboratories.

Highly effective, yet *non-toxic* in recommended dosage, LUSYN's clinical efficacy lies in its unique threefold pharmacological action:

1. Its homatropine methylbromide (1/21 gr.) relieves *gastro-intestinal spasm* without unpleasant side effects.
2. Its phenobarbital (1/8 gr.) aids in providing *central sedation*, thus helping to control the psychogenic factor.
3. And its alukalin (5 gr.) is a potent *antacid* and *adsorbent*, which tends to *reduce irritability* and *add bulk*.

Indications include: pylorospasm—cardiospasm—unstable colon—biliary dyskinesia—biliary colic—and as an adjuvant to the dietary and medical management of peptic ulcer, intestinal flatulence and gastro-enteritis.

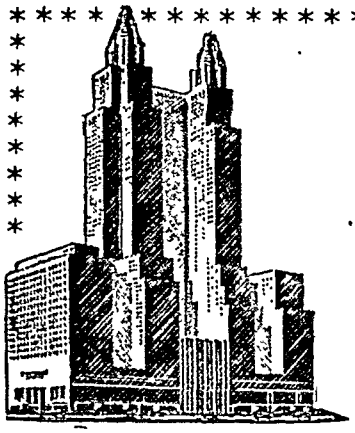
Suggested dosage: 1 or 2 tablets before meals.

Supplied in bottles of 100 tablets each.

LUSYN

TABLETS

The Malthie Chemical



Prescribed

FOR WARTIME ECONOMY

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no long-term commitments...safe ..centrally located...restful
Special Rates for Long Periods
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For Normal LACTATION

DAILY MILK PROTEIN secretion by the average lactating mother is 13 to 18 grams (1) If the mother's protein intake is not sufficient, it is obvious that the milk supply will be inadequate

By supplementing the diet with AMINOIDS*, the physician *provides the nursing mother with sufficient protein for normal* lactation and for optimal maintenance of her own reserve

AMINOIDS is a protein hydrolysate containing the amino acids known to be in the source materials—beef, wheat, milk and yeast Patients like it because it is pleasantly palatable and convenient to take in hot or cold liquids . . . milk, canned juices, broths, etc

One tablespoonful of AMINOIDS provides nitrogen equivalent to 4 grams of protein as hydrolysate

Aminoids

REG. U S. PAT OFF

A PROTEIN HYDROLYSATE PRODUCT

For Oral Administration

ACCEPTED AMERICAN MEDICAL ASSOCIATION

Pads of practical recipes incorporating AMINOIDS available to physicians upon request

(1) De Lee J B and Greenhill J P The Principles and Practice of Obstetrics (1943), pp 317 319

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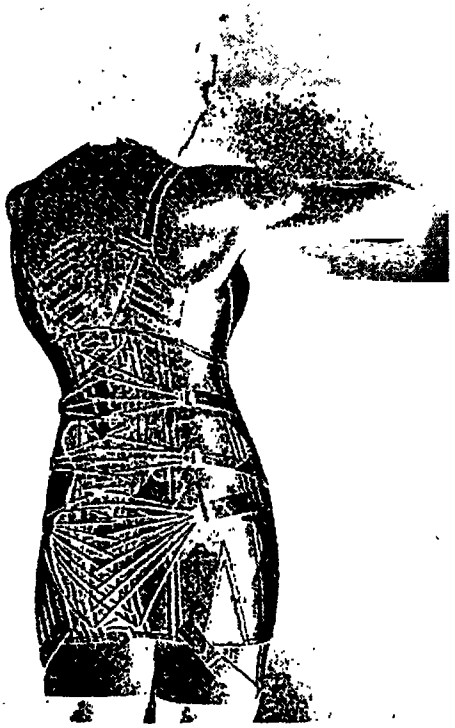
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CAMP

Orthopedic Support FOR Chronic Low Back Pain



Patient of intermediate type-of-build (skeleton indrawn)

This lumbosacral support is specifically designed to limit the range of the lumbar spine bending when either the framework or soft tissues of the low back are the seat of injury or disease. Effective support is given the gluteal region, the lumbar spine and the sacro-iliac and lumbo-sacral joints. The adjustment about the pelvic girdle prevents undue pressure of the upper adjustments and yet the presence of the center adjustment gives relief and comfort to the patient. Provision is made for reinforcement with aluminum uprights when indicated.

CAMP

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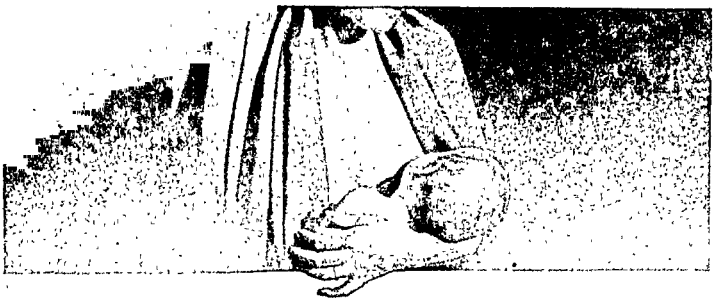
Prescribed in many types for the condition illustrated and for Prenatal, Postnatal, Post-operative, Pendulous Abdomen, Visceroptosis, Nephroptosis, Hernia and Orthopedic conditions.

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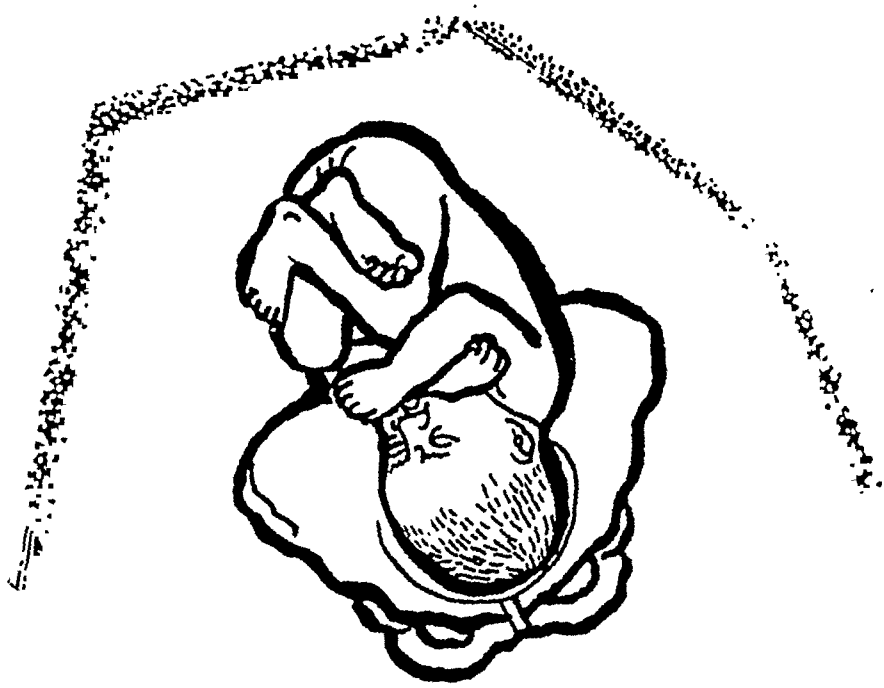
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(1) De Lee, J. B., and Greenhill, J. P., The Principles and Practice of Obstetrics (1943), pp. 317-319.

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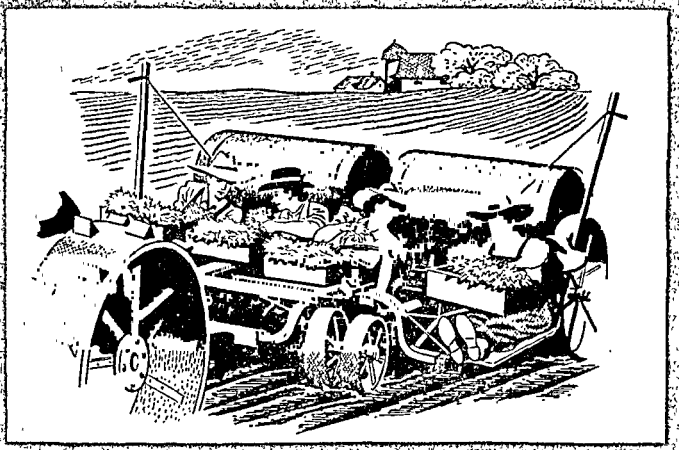
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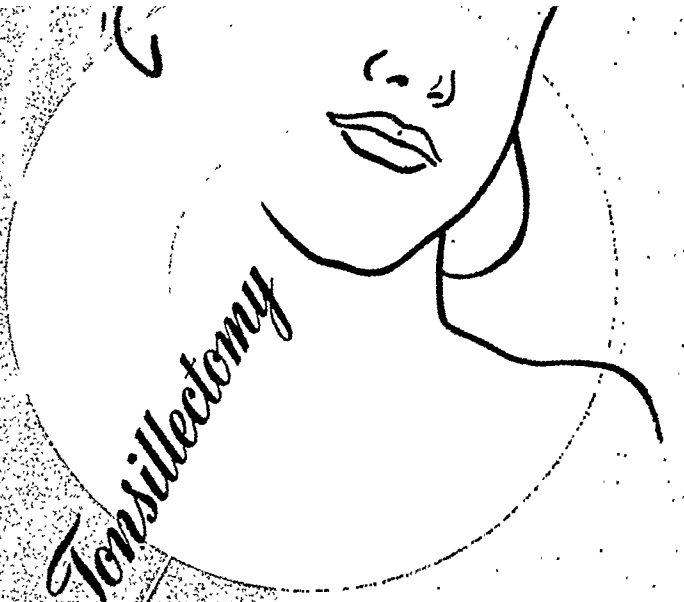
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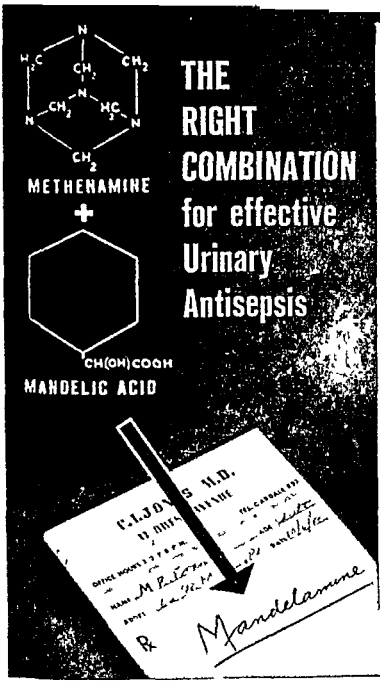
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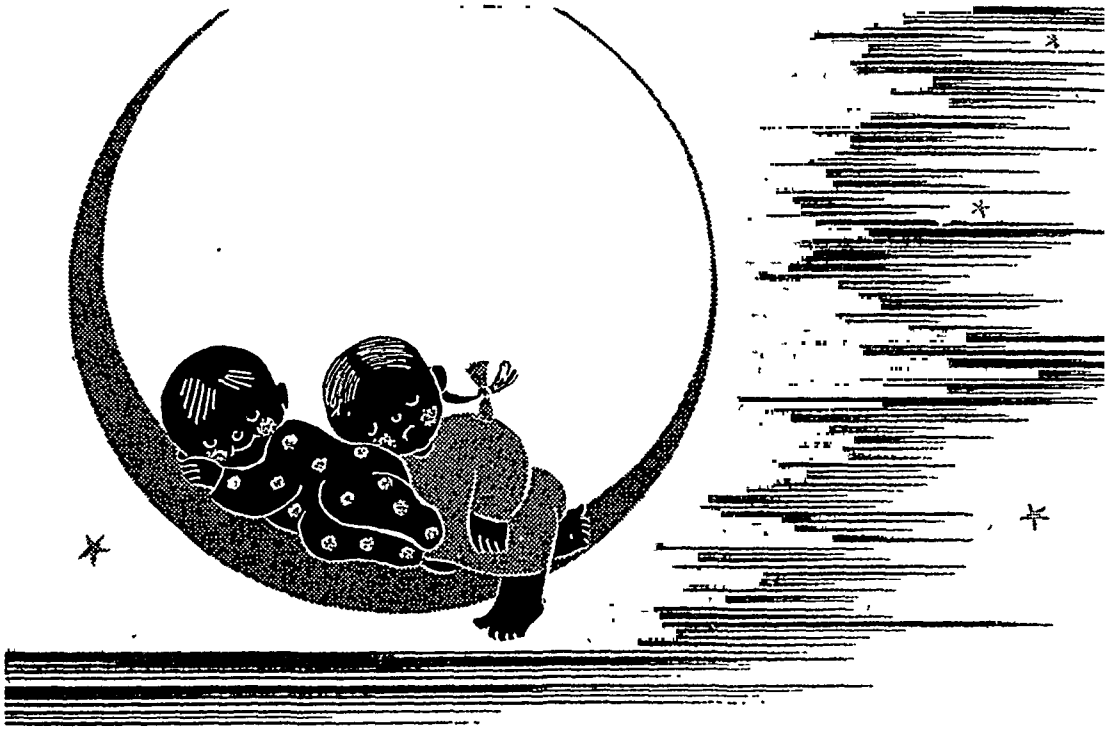
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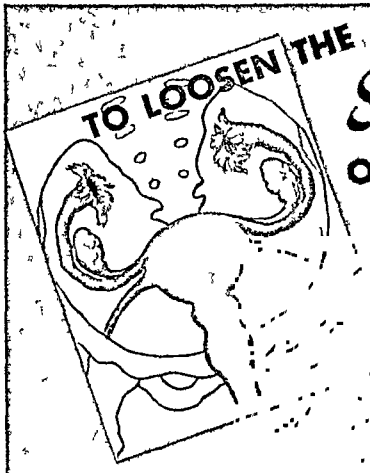
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1. Am. J. Dis. Child. 54: 1227, 1937.



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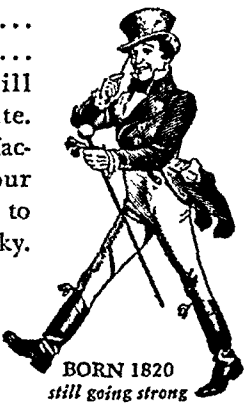


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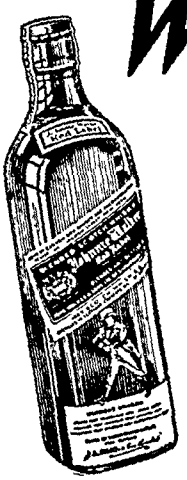
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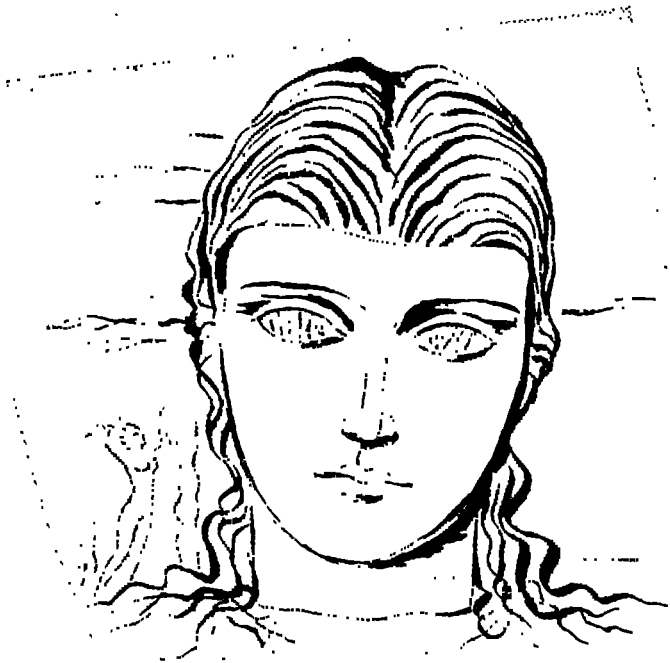
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VOLUME 45 JUNE 15, 1945 NUMBER 12

Editorial

The Record of an Outstanding Institution

In his recently published book, *New York Hospital*, a history of the psychiatric service from 1771 to 1936, Dr. William H. Russell gives an account of the earliest, and for nearly fifty years, the only provision for the hospital treatment of the mentally ill in the State of New York, and its subsequent development.

In 1792, the year in which New York Hospital admitted its first mentally ill patient, Dr. Philippe Pinel created a sensation in Europe when, at a hospital in Paris, he released "a large number of patients from chains and fetters and replaced the severe repressions and drastic medical practices that were then universally employed with a system of 'moral treatment.'" Only one institution, the Pennsylvania Hospital, in Philadelphia, existed in British America prior to the establishment of New York Hospital. There, Dr. Benjamin Rush, "like a voice in the wilderness, was calling for more rational, humane, and effective treatment for the mentally ill." Not until 1769 were three students granted diplomas from Kings College Medical School in New York, at which time Dr. Samuel Bard in an address "accomplished the first steps in the campaign for the establishment of 'the Hospital in the City of New York,'" which, in 1771, began its long and memorable service to the mentally ill.

The long, tedious struggle to implement, practically, the more advanced medical thought of a postrevolutionary period in terms of medical education and better hospital facilities is set forth by Dr. Russell in what amounts to a comprehensive early medical history of New York City. It covers the purchase in 1815 of land for the Bloomingdale Asylum and a proposed new system of "moral treatment" advocated by Mr. Thomas Eddy, one of the Board of Governors of the Hospital, a Quaker, and "a tireless worker for the welfare of humanity." Thirty-eight acres of land, seven miles from Federal Hall on Wall Street, part of the estate of Gerald DePeyster at Bloomingdale, were purchased, and on June 1, 1821, Bloomingdale Asylum was officially opened.

By 1830, Governor Throop,[1] "after de-

[1] Annual message to the New York Legislature.

scribing the neglect and mistreatment of the mentally ill throughout the State, added: 'The contrast of their condition with those in the Lunatic Asylum in New York (Bloomingdale) is very striking. In the latter place everything is spacious, cleanly, and pleasant to the eye; the inmates are suffered to be at liberty and range in the open air in an enclosed yard, they are treated with kindness . . . .; the consequence is, that many who are placed there are restored to reason and discharged after a short period, to enjoy the society of their friends . . . . but one out of sixty or seventy then under care were in close confinement.' " Not until 1896—under the State Care Act of 1890—were all "the insane poor" provided for in state hospitals. By 1840, the fact had been impressively established that a fair proportion of the mentally sick could be cured. The forms of disorder were classified as mania, monomania, dementia, and idiocy. In 1845, an early essay in adult education as a means of group treatment was commenced by Dr. Pliny Earle, who succeeded Dr. Wilson as medical director, and increased recreational facilities were provided.

From 1851 to 1877 the Asylum was subject to many investigations and criticisms, out of which arose some changes for the better. Meanwhile, recognizing the necessity for expansion, property had been acquired at White Plains after many other sites had been investigated, and in May, 1892, work was commenced on "The Society's Farm at White Plains." Bloomingdale, with the "Asylum" omitted, was moved to White Plains in 1894. The school for adult education, established by Dr. Earle but subsequently abandoned, was re-established in 1895; nurse training grew out of the former lecture course for attendants, and in 1897 two women and three men who had completed the course of instruction were given certificates and badges. In 1905 modern clinical and laboratory methods were introduced, building expansion again took place, and a superintendent of nurses was appointed in 1912. Between 1926 and 1936 a complete organization for service, education, and research was established under Dr. Russell and continued successively by Dr. Mortimer Raynor and Dr. Clarence Cheney.

New York Hospital comprises a wealth of historical research and presents a review of the development of the care of the mentally ill in the City of New York which should fascinate all who are interested in truly pioneering movements in the field of psychosomatic medicine. Dr. Russell and his coworkers are indeed to be congratulated on a monumental and fascinating work. At this time, when interest in and support for psychosomatic medicine is widespread, it is well to honor in retrospect those who labored successfully with enlightened inspiration to bring about rational, scientific treatment and hospitalization of the mentally ill.

Infectious Hepatitis

Catarrhal jaundice is no longer so designated in our modern textbooks.[1–3] With increasing knowledge our altered concept has compelled a change of its former name to infectious hepatitis, but the previous term is retained as a pseudonym, a linkage with the past. The present war has heightened the incidence of this form of jaundice and emphasized its epidemic nature. In the Mediterranean military sphere infectious hepatitis has been one of the three most common diseases, sharing this doubtful distinction with malaria and venereal diseases.[4]

The former view of catarrh of duodenum and bile ducts as the causative mechanism is no longer seriously maintained, for the pathology is that of diffuse hepatitis with presumably secondary involvement of the finer bile ducts. Its epidemic nature and similarity to the jaundice caused by homologous serum injections have led to studies which seem to incriminate a virus as the causative agent. The virus has been successfully transferred by inoculation with the blood, bile, stools, and liver tissue obtained during the acute stage of the disease.[5,6]

This work receives clinical support by the rarity of second attacks, indicating a lasting immunity often associated with virus infections. The incubation period averages about one

month, but may be much longer. The incidence peak is from October to November, giving rise to the suspicion that insects may play a prominent role in its dissemination.[4] The virus can be spread by droplet infection as well as by excreta, infected food and water, and flies. These findings call for isolation of the patient in the acute stage, and proper disposal of his discharges.

The clinical picture is too well known to require elaboration, but certain features merit repetition. There is a preicteric stage of from one to eight days, characterized by some fever, respiratory catarrh, malaise, gastrointestinal symptoms, and leukopenia. Usually after a lull, during which time arthritis, rashes, and neurologic features occasionally occur, the icteric stage supervenes. The intensity of the jaundice varies from slight to very marked. The stools are clay-colored in the bare majority of cases; of light color in the others. The fat content of the stool is generally increased, probably because of lack of bile. The icteric stage persists for one to three weeks, during which the liver is usually enlarged. The spleen was palpable in about 30 per cent of the cases of one series.[5] The urine contains bile in all cases, but is free of this element in about ten days.

Such studies shed a different light on the cause, pathology, and epidemiology of a disease which rapidly increases in areas and communities which are suddenly expanded under lax hygienic conditions. Since there is no specific treatment, isolation of the patient, with precautions as in typhoid fever, investigation of the food and water supply, and precautions against the insect vector are valuable prophylactic measures. While the mortality rate is extremely low, the high morbidity rate serves to deprive organizations of sorely needed manpower and work hours. Let us hope that the newer knowledge will reduce the incidence of infectious hepatitis.

[1] Cecil, R.: Text Book of Medicine, 6th Ed., W. B. Saunders Co., 1943, pp. 753–755.
[2] Meakins, J.: Practice of Medicine, 4th Ed. C. V. Mosby Co., 1944, pp. 720–723.
[3] McIntosh, R., and Holt, L.: Holt's Diseases of Infancy and Childhood, 11th Ed., Appleton Century Co., 1941, p. 472.
[4] Witts, L. J.: Brit. M. J. 4352: 739 (June 3) 1944.
[5] Cameron, J. D. S.: Quart. J. Med. 12: 139 (July) 1943.
[6] Bayne-Jones, S.: Seventeeth Graduate Fortnight, New York Academy of Medicine, October 11, 1944.

Gamma Globulin

Gamma globulin, one of the by-products remaining after extracting the serum albumin from blood plasma, is being made available to the medical profession of the United States through the courtesy of the American Red Cross in collaboration with the Bureau of Medicine and Surgery of the Navy. The Navy has preferred serum albumin to blood plasma for the treatment of shock because it can be stored in smaller bulk and is, therefore, more convenient for use on naval vessels.

Upon the recommendation of a Special Medical Advisory Committee which was recently appointed by Mr. Basil O'Connor, Chairman of the American Red Cross, to assist him in planning future problems of policy, the American National Red Cross has appropriated the sum of $1,500,000 to defray the cost of processing the crude gamma globulin into the refined product, and to package and distribute it to the medical profession through state and local health departments. Sufficient gamma globulin is now available to meet the anticipated civilian needs of the country for several years, provided it is used judiciously.

For the present, civilian use is to be limited to protection of measles contacts. It is particularly indicated in young children up to and including the age of 5, those over the age of 5 who are suffering from some other disease in whom the presence of measles would present a hazard, and for children of all ages exposed to measles on the ward of a hospital. The armed forces will retain some of the material for the prevention of infectious hepatitis. Up to the present time, there is insufficient information to warrant the use of this precious material as protection against scarlet fever, rubella, poliomyelitis, or other communicable diseases except measles and infectious hepatitis. With the approval of the health authorities and the National Research Council, a limited amount of the product may be made available for research.

Gamma globulin is distributed in solution in a concentration twenty-five times that of the pooled plasma from which it is prepared. The dosage to be employed has been worked out through a mass experiment recently conducted by the Department of Health of the City of New York for the American Red Cross. It is recommended that a dose of 2 cc. intramuscularly be used for the protection of children under the age of 5 and for the modification of the dis-

ease in older children. Double this dose, i.e., 4 cc., is recommended for complete protection against the disease in children over 5. If too large a dose is used, complete passive protection is attained and only temporary immunity will then result. Two small a dose may slightly modify the disease but will be followed by permanent immunity after the disease occurs.

Except for serum albumin, gamma globulin, and fibrin film, no important use has thus far been found for the other protein fractions which remain from the processing of blood plasma. However, encouraging investigations are continuing under the direction of Dr. Edwin J. Cohn of the Harvard Medical School, in collaboration with the Subcommittee on Blood Substitutes of the National Research Council.

GEORGE BAEHR, M.D.

Greenberg, M., Frant, S., and Rutstein, D. D.: J.A.M.A. 126: 944 (Dec. 9) 1944.

Current Editorial Comment

Of This and That

Commenting on two decades of progress against illiteracy, the Statistical Bulletin[1] says, in part:

"The large number of Army rejections on the grounds of insufficient education, and the wide publicity given to these, have created the impression that illiteracy is today widespread among the young people of this country. A reasonably careful examination of the facts, as brought out by the census of 1940, gives a very different picture, for it discloses a most favorable trend of vanishing illiteracy.

One way of measuring the progress achieved is to compare the age group 25–29 in 1940 with the same age group in 1920, or what amounts to essentially the same thing (but for the minor effect of immigration), with the age group 45–49 in 1940.

In this way, on the basis of the published data of the 1940 census, it is possible to compare the educational status of young persons of the same general age in 1920 and in 1940. The fact at once becomes apparent that in the white population total illiteracy—that is, the inability to read or write—is nearing the vanishing point in this country. In 1940, only two thirds of 1 per cent of the white population in the ages 25–29 had never attended school. In contrast, of those aged 45–49 in 1940 nearly 4 per cent had never attended school. Even making allowance for the fact that a few of these may have learnt to read and write outside of elementary schools, there can be no question as to the significance of the wide difference in these figures. . . . .

In a large and indeed dominant section of the population, the gains have been even more spectacular. In that part of the country lying outside of the southern states, less than 1 per cent of the white population of ages 25–29 had failed to attend school at all or to complete four years of schooling. In the generation twenty years earlier, the corresponding ratio of illiteracy was about 8 per cent. The decline in this wide area, therefore, was 87 per cent since the first World War. . . . ."

This is indeed hopeful and a vast stride in the right direction, and somewhat indicative of what may be expected in the future. We would not counsel oculists to consign their illiterate charts to the paper salvage campaign yet a while.

• • •

The New York Herald Tribune[2] reports the results of a survey of draft rejection rates by Selective Service. The report says that 40.3 per cent of the men called up at the age of 28 are rejected as physically unfit. The rejection rate is slightly over 50 per cent at the age of 34, and 59.1 per cent for men of 38. The rate at 44 years is 63.2 per cent. Says Selective Service, these rejection rates "are probably the best indication of the general unfitness of men over 29 to take their places in the armed forces." National rejection rates per 100 registrants February through August, 1943, are: whites, 39.2, Negro, 56.9, total U.S., 39.2. Highest rejection rate for the twenty-one months studied was among men employed in domestic service, as cooks, valets, chauffeurs. Of the men in that category examined, 59.6 per cent were turned down.

Here seems to be material calling for research and investigation in the interest of the public health, especially with respect to cooks.

[1] Stat. Bull. Met. Life Ins. Co., Dec., 1944, pp. 9, 10.

[2] January 26, 1945, p. 5.

Correction.—In the May 1 issue, page 1018, column 2, line 19, the figure at the end of the line should read $27.75" instead of "$72.75."

FURTHER EXPERIENCES WITH THE SURGICAL TREATMENT OF INTRACTABLE ULCERATIVE COLITIS

JOHN H. GARLOCK, M.D., New York City

(From the Surgical Service of the Mt. Sinai Hospital, New York City)

IN JANUARY, 1941, I reported a series of 25 cases of ulcerative colitis treated by surgical methods and called attention to the fact that, although most authorities agree that ulcerative colitis is essentially a medical problem belonging to the general class of psychosomatic diseases, there still remained a group, estimated at between 10 and 20 per cent, which resists all forms of medical therapy and in whom the pathologic process in the colon progresses to irreparable involvement. Since 1941, our experience with the surgical treatment of this disease has broadened considerably and I would like to present our present viewpoint, based on an analysis of 68 cases.

In order to clarify the indications for surgical therapy, one must have a clear picture of the pathologic sequence in this disease. Briefly stated, nonspecific ulcerative colitis, of unknown cause, is a progressive inflammatory condition of the colon which may be diffusely or segmentally involved. It is characterized by marked hyperemia of the mucosa, ulcerations, infiltration of the colonic wall by the products of inflammation, and the formation of scar tissue. Polypoid degeneration of the mucosa is a not infrequent sequela. There are exacerbations and remissions with gradual progression of the pathologic process until the colon is converted into a greatly thickened, fibrotic, shortened tube, lined by infected granulation tissue constantly exuding pus and blood. The progress of the disease in the colon is reflected in the patient's general condition. Because of frequent rectal discharges with associated loss of fluids, and the general toxemia caused by absorption from the diseased bowel, gradual physical deterioration takes place with weight loss, anemia, avitaminosis, and toxic manifestations such as fever, arthritis, skin infections, etc. Severe psychic disturbances may accompany the physical aspects of the disease. When the colon has reached the stage of such involvement, the disease has become intractable, and it is useless to expect restoration to normal by conservative means.

In the past, the surgical treatment of this disease consisted of appendicostomy, cecostomy, loop ileostomy, and, occasionally, colostomy. The loop ileostomy usually accomplished its purpose of diverting the fecal stream but was invariably followed by marked prolapse of the ileum, a distressing complication as far as the patient was concerned. The purpose of the other procedures was to permit irrigation of the diseased bowel with medicated solutions in the hope of restoring the mucosa to normal. Experience has shown that this therapy was based upon fallacious reasoning and that the important requisite of successful surgical treatment was complete diversion of the fecal stream from the diseased bowel segment.

In the paper published in 1941, it was stated that, after consultation with the members of the Gastroenterologic Department, definite criteria for surgical therapy were established. Since then, a more extended experience has amply corroborated the viewpoint expressed at that time. To repeat, we are agreed that surgical treatment is indicated under the following conditions:

1. Uncontrollable bowel hemorrhage
2. Acute ulcerative colitis with profound toxemia not responding to sulfonamides or other medical therapy
3. Impending perforation of the colon
4. Chronic intractable colitis, with extensive scarring of the bowel, polypoid degeneration, or rectovaginal fistulae, resisting all forms of medical therapy
5. Segmental ulcerative colitis

If the combined medical and surgical staffs are in agreement on these criteria, then the rationale of the various surgical procedures to be described will become quite apparent.

We believe that ileostomy should be employed under certain circumstances in the treatment of this disease and disagree with some surgical authorities who recommend ileostomy as the procedure of choice in the early treatment of all ulcerative colitis patients. It is our conviction that ileostomy is indicated as the initial procedure under the following circumstances:

1. For uncontrollable hemorrhage. Complete diversion of the fecal stream will tend to put the diseased bowel at rest and minimize the likelihood of further bleeding.

2. For acute ulcerative colitis with profound toxemia. The course of the disease is short and fulminating and the patients are desperately ill. Without operation this variety has a high mortality rate. From our experience, we are convinced that the early performance of ileostomy

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is a life-saving measure. It is important that the operation be performed at the opportune moment and not be deferred until the patient is practically moribund.

3. For impending perforation. Whenever, during the clinical observation of a patient with ulcerative colitis, signs of threatened perforation become evident, ileostomy should be performed as an emergency measure. Only by diminishing intracolonic pressure by diverting the fecal stream can actual perforation be prevented, and it must be remembered that when perforation does take place, the mortality is close to 100 per cent.

4. Intractable colitis involving the entire colon and rectum. Ileostomy is the first step of a graded resection of the colon.

There are a few points concerning the operation of ileostomy which merit emphasis. There are so many objections to the old loop ileostomy that I believe this procedure should be discarded. A properly performed ileostomy should entail complete division of the terminal ileum, the implantation of the proximal and distal stomata in separate incisions, insurance against retraction of either stoma into the abdomen, and also external prolapse of the proximal stoma after it begins to function. In 1938, we developed a new type of ileostomy and have utilized this operation with complete satisfaction since then. The details were reported in 1941 and need not be repeated now. Suffice it to say that we have not encountered one instance of prolapse since the operation was first performed. It is important to emphasize that, during the performance of the operation, especially in cases of acute colitis, the operator should scrupulously avoid any handling of the diseased bowel. The slightest trauma will frequently result in a postoperative perforation at that site. One such experience emphasized to us the importance of this feature.

The marked improvement in the general condition of the patient following ileostomy is one of the remarkable features of the surgical treatment of colitis. The weight gain may be up to fifty pounds, the anemia disappears, the appetite improves, and the various toxic manifestations abate. Skin lesions and joint symptoms may not disappear until the infected colon is removed. At least, such has been our experience. In the acute fulminating cases, ileostomy is followed by a dramatic change in the patient's condition, with a drop in the temperature, often by crisis, and a rapid decrease in the rectal discharges. As time goes on, the discharge from the ileostomy gradually becomes semisolid, which becomes more evident after removal of the diseased colon. It appears that a change takes place in the physiologic activity of the small bowel and that the ileum takes over the water-absorbing function of the diseased colon. In our opinion, ileostomy should in no sense be considered a curative operation. It is the first stage of a graded operation, consisting of subtotal or total colectomy. It seems important to emphasize that we have observed very active disease still present in the colon two years after its exclusion by ileostomy. Therefore, re-establishment of continuity of the ileum is fraught with great danger. The literature contains a number of such instances in which a fatal issue followed the lighting up of a dormant process in the colon.

If the disease is confined to the left colon and rectum and operation is deemed advisable, transverse colostomy instead of ileostomy may be carried out. In such cases, complete transection of the transverse colon and its mesentery and implantation of the colostomy stomata in separate incisions, after the manner of ileostomy, is the method of choice. This is followed at a later date by resection of the left colon and rectum, if the latter is hopelessly diseased.

If the rectum and lower sigmoid are found, on sigmoidoscopic examination, to be free of disease, the initial operation of choice is an ileosigmoidostomy or ileoproctostomy with division of the terminal ileum and transection of the colon proximal to the anastomosis. This is done to prevent progression of the disease to the uninvolved segment of bowel. The rationale of this procedure is clearly proved by the excellent follow-up results in these cases. It is important to exteriorize as a colostomy stoma the proximal end of the transected colon, to permit external discharge of the foul secretions from the excluded diseased colon. This important technical feature has already been emphasized by Berg. At a later date the excluded bowel should be removed in one or two stages.

When ileostomy has been performed as the first stage of a graded procedure, the nature of the subsequent steps will depend upon a number of factors. If the disease is universal and there is hopeless involvement of the rectum as well, as indicated by the presence of polyposis, stricture, or rectovaginal fistulae, further surgery will consist of: first, a subtotal colectomy, and second, an abdominoperineal resection of the rectum. There is some danger in leaving a badly diseased rectum. We have seen three instances of carcinomatous degeneration on the basis of a chronic severe ulcerative proctitis and in each one, the malignancy was of such high grade as to result in early death of the patient. If, however, the rectum is not so severely involved, it is our policy to do a subtotal colectomy and preserve the lower sigmoid and rectum for possible future use in re-establishing intestinal continuity. The rationale of this plan has appealed to us because we

felt that, following colectomy, there would be a greater possibility for a complete abatement of the disease in the rectum itself. In six patients, after a wait of two to three years and repeated examinations indicated apparently complete cessation of the disease and return of the mucosa to normal, we disconnected the ileostomy and re-established intestinal continuity by uniting the ileum and upper rectum. The results have been more than encouraging.

Analysis of Cases

Between September, 1937, and April, 1944, we have operated upon 68 patients. In 38 instances, the primary operation was ileostomy. In this group there were six deaths, a mortality of 15.7 per cent. The cause of death, as determined by postmortem examination in each instance, was generalized peritonitis in three cases, bronchopneumonia in two, and a massive exsanguinating intracolonic hemorrhage in the remaining case. Of the remaining 32 patients, five were subjected to subtotal colectomy in one or two stages followed by abdominoperineal resection of the rectum. There were no deaths in this group and all the patients are well and carrying on their normal activities. Three of them have since married and none has been bothered too much by the ileostomy. In 21 instances of the ileostomy group, subtotal colectomy was performed in one or two stages, but the lower sigmoid and rectum were left in situ. In this group there were four deaths, a mortality rate of 19.9 per cent. The causes of death, verified by autopsy, were as follows:

1. Generalized peritonitis after second-stage colectomy
2. Generalized peritonitis after retraction of colostomy loop following first-stage colectomy
3. Peritonitis and subphrenic abscess after second-stage colectomy
4. Intestinal obstruction caused by band between the first and second stages of colectomy

In the remaining 17 patients, our greatest interest has been directed toward the remaining lower sigmoid and rectum which were left in situ for possible future use in re-establishing intestinal continuity. In six patients, in whom originally there was disease in the rectum, we have taken down the ileostomy and anastomosed it to the upper rectum. Three patients are alive and well after two, three, and five years respectively. They average two to three semisolid movements a day and are continuing with their work. Repeated proctoscopic examinations have shown normal mucosa. Of the remaining three patients, one developed a severe recurrence in the rectum three weeks after the operation and died of peritonitis from a perforation of the upper rectum. The fifth patient died one year later of intestinal obstruction caused by torsion at the site of anastomosis. At postmortem examination, the rectum was free of disease. The sixth patient died three years after operation of intestinal obstruction caused by a band, with gangrene of a portion of ileum. It may be stated, therefore, that in only one of these patients was there any evidence of recurrence of the disease after intestinal continuity was re-established. In six of the remaining eleven patients, improvement in the rectal stump has been so marked that anastomosis will soon be carried out. In four, it is too soon to express any opinion about such a possibility and in the eleventh case, abdominoperineal resection will be necessary because of extensive polypoid degeneration.

In the group of six primary transverse colostomies for left-sided disease, five underwent left colectomy and abdominoperineal resection and one has had only a left colectomy. One patient died after an abdominoperineal resection of an extensive retroperitoneal phlegmon.

In another group of patients, 13 in number, the primary operation was ileoproctostomy or ileosigmoidostomy with exclusion of the diseased colon, followed by subtotal colectomy in one stage. There were no postoperative deaths. One patient died three years later of intestinal obstruction caused by a band. Only one patient subsequently developed disease in the rectum, and it became necessary to perform an ileostomy. Since then he has done well. The remaining patients are well and show no evidence of disease on sigmoidoscopy. The follow-up ranges from seven years to nine months.

There is, finally, a miscellaneous group of ten patients who had segmental colitis. In seven, an ileosigmoidostomy with exclusion of the terminal ileum was done. Two died postoperatively, one of sulfanilamide hepatitis and the other of peritonitis caused by unnecessary and ill-advised handling of the cecum at the time of operation. The five survivors are in good health and doing well. Two patients were subjected to an obstructive resection. In one, the disease was confined sharply to the sigmoid colon. He has remained well since closure of the colostomy. The other patient was submitted to an ill-advised and poorly executed operation and succumbed to generalized peritonitis. The tenth patient presented a segmental colitis of the ascending colon and had an ileocolic resection in one stage. He has been well for six years.

Finally, I would like to call attention to the appreciable incidence of intestinal obstruction

caused by bands, occurring some time after major colonic surgery. In this series of 146 major operations, there were 8 instances of acute intestinal obstruction occurring at varying times following discharge of the patients from the hospital. In spite of the use of the Miller-Abbott tube, laparotomy, and all the modern chemical aids, 5 patients succumbed and only 3 recovered. This experience emphasizes the importance of peritonealizing all raw surfaces at the time of the colonic resections and the need for eliminating all intraperitoneal pockets into which a loop of bowel might herniate and become obstructed. Careful attention to the technical details of these operations should eliminate this highly undesirable and dangerous complication.

Discussion

Dr. Burrill B. Crohn, *New York City*—The very fact that in 1941 Dr. Garlock reported his experience on only 25 cases, while three years later his urgery has included 68 cases, bespeaks the broadening interest in this field of medicine. The massive procedures involved necessarily entail a high risk. It is therefore necessary to review such findings in order to compare risk and results.

Uncontrollable bowel hemorrhage rarely need invoke surgical intervention. Parenteral injections of Vitamin K in abundant dosage usually controls this situation even though the prothrombin test of the blood is within normal limits. The bleeding from the bowel is not arterial, nor is it venous, but is a capillary mucosal exudation and as such is usually controllable by Vitamin K intramuscular injections.

In intractable universal ulcerative colitis the decision when to request an ileostomy is a mos difficult one. If one waits too long, the mortality of the operation may reach 40 to 50 per cent. If one is impatient the next consultant advises delay, and one is likely to be miffed by a sudden and spectacular improvement in the condition of the patient. Dr. Garlock's reduction of the mortality rate of ileostomy to 15.7 per cent is the first encouraging step in this direction. If the surgeon, in addition, could promise that by some feat he could take down the ileostomy at a future day and anastomose the ileum to the sigmoid or rectum (following a colectomy), the objections of the medical man to a permanent disabling ileostomy would be overcome.

Such a successful outcome I saw completed some years ago. A young girl had an ileostomy for six years. In spite of severe rectal involvment, I myself having previously performed the sigmoidoscopies, the rectum had healed; a partial colectomy, followed by an ileoproctostomy, resulted in perfect health.

In this series Dr. Garlock has attempted the same procedure in six cases. Three patients are alive and well, an accomplishment that breeds respect for surgical skill and a real ray of hope for these semi-invalids. Two other patients lived one and three years respectively but lost their lives from later intestinal obstruction. Were it not for these unfortunate and adventitious late complications he would be able to report five out of six such difficult accomplishments successfully carried out.

The very fine results achieved in right-sided or segmental colitis are again most encouraging. Thirteen cases of ileosigmoidostomy with exclusion of the diseased colon, followed by partial colectomy, without an immediate surgical death, is a tribute to modern abdominal technic. A small but identical series was reported in 1938 by Dr. A. A. Berg and myself, and in this series we reported on 5 patients with this complicated type of segmental colitis, all of whom had had an ileosigmoidostomy and subsequent subtotal colectomy. These patients are all apparently well. This procedure is a very satisfactory one, provided always that the rectum had been previously repeatedly examined by sigmoidoscopy and had been proven to be free of disease. I know personally most of the patients in these two series. The postoperative diarrhea may at times be troublesome—three or four stools per day—but the general health and weight is rapidly improved and the individuals are restored to an efficient role in life.

LONGER TREATMENT NEEDED IN TUBERCULOSIS HEALING

Most of the tuberculous patients who seek medical aid today have had many reinoculations with many resultant foci of varying degrees of severity. The best that clinicians can do in a short course of treatment in such a chronic disease is to secure a truce between the patient and his bacilli, a truce which may be broken on either side; by the bacilli if their environment becomes congenial for their growth and multiplication; by the patient if he can increase his resistance sufficiently, maintain it at a high level, and thus prevent the bacilli from further activity. Here we make one of our most abject failures in treating tuberculosis. Both physicians and patients are prone to lose interest, and treatment is often interrupted before healing has been attained. By relaxing measures necessary to complete healing, the patient's defensive powers are allowed to lower, the tissues lose their resistance, and new activity starts. Thus are caused the many relapses which plague us and make us almost lose confidence in therapeutic measures. If we had a little longer treatment and a great deal longer extension of the careful life after treatment has been finished, and a full rehabilitation of the patient before he is discharged from observation, many of the reactivations which we speak of as "breakdowns" would be avoided and many sources of infection would be permanently, instead of temporarily, eliminated.—*F. M. Pottenger, M.D., Am. Rev. Tuberc., Aug. 1944*

HODGKIN'S DISEASE

Salient Clinical Features and Relative Value of Various Methods of Treatment Based Upon Study of 319 Cases

LEONARD B. GOLDMAN, M.D., and ABRAHAM W. VICTOR, M.D., New York City

(From the Division of Cancer, Department of Hospitals, City of New York)

IN 1940, one of us[1] reported a statistical analysis of 212 cases of histologically proven Hodgkin's disease. Since that date our study has continued with an additional 107 cases, a total of 319 patients. In the previous paper the disease with its different manifestations was described in detail; in this communication we wish to emphasize the salient clinical features and stress the relative value of the various methods of treatment.

We have had the unusual opportunity to study this disease in municipal institutions which admit patients in all stages of the disease. Of the total number of patients, 128 were followed at the New York City Cancer Institute (1926–1942), 126 at the Radiation Therapy Department at Bellevue Hospital (1926–1936), and 65 at Queens General Hospital (1936–July, 1944). In this series 193 (60 per cent) were observed until death and 69 of these (32 per cent) have had complete postmortem studies.

History and Physical Findings

The disease may occur at any age. Our youngest patient was 5, and our oldest 76, with the highest incidence in the third and fourth decades. This age distribution is in contrast to that of lymphosarcoma, in which the incidence is greater at the extremes of life.

When seeking medical aid the majority of patients were in relatively good condition, their chief complaint being that of a "swelling," usually in the neck. The duration of this "swelling" varied from one week to seven years. A smaller number were chronically ill with varying symptoms, such as loss of weight, weakness, pyrexia, cough, dyspnea, pain in the chest, and backache, which could be manifestations of a multitude of disease. One leading and outstanding symptom was pruritus. The occurrence of this symptom in the presence of enlargement of lymph nodes was usually suggestive of Hodgkin's disease.

A clinical diagnosis of Hodgkin's disease can frequently be made by deft palpation of the involved lymph nodes. Classically, one is able to count from three to five nodes in each of the involved groups. The nodes may vary in size from 2 to 12 cm. They are irregular, resilient, and differ in consistency depending upon the histologic picture. Matting may or may not be present. As a rule, more than one area is involved and it is rather unusual to find the disease limited to a single lymph node.

Not infrequently the cytology of the involved lymph nodes may be surmised from palpation of these nodes. Attachment to surrounding structures, matting, and marked firmness are indicative of excessive fibroblastic activity. On the other hand, "doughy," elastic, relatively soft nodes bespeak marked parenchymal proliferation. The latter type regresses much more rapidly under the effects of radiotherapy.

Sternal Node Involvement

It is interesting to note that 13 of our patients showed involvement of sternal nodes. In 9 cases the enlargement was to the right, and in 4 to the left of the edge of the sternum along the course of the internal mammary artery and at the level of the second and third intercostal spaces. These nodes measured from 6 to 10 cm. and were fixed to the underlying chest wall. We have found these prominences to be pathognomonic of Hodgkin's disease just as a Virchow's node is indicative of an intra-abdominal malignancy. In our last four patients with sternal nodes we unhesitatingly made the correct clinical diagnosis, mainly on the basis of their presence. These diagnoses were later confirmed by microscopic study.

The only mention in the literature of sternal node involvement was made in 1940 by one of us,[1] stating that 3 patients were made aware of their condition by a swelling on one side of the sternum (see Fig. 1).

Cutaneous Manifestations

One hundred and twenty-four of our patients (39 per cent) showed diverse cutaneous manifestations. Only a few presented a microscopic picture characteristic of this disease. The report of Reimann[2] coincided with our findings. He found that lesions specific for Hodgkin's disease in the skin are as rare as nonspecific ones are common.

The symptoms varied from slight pruritus with no visible lesions to a generalized exfoliative dermatitis with severe pain. The most common finding was that of small, scratched papules, at first appearing most frequently on the extremities

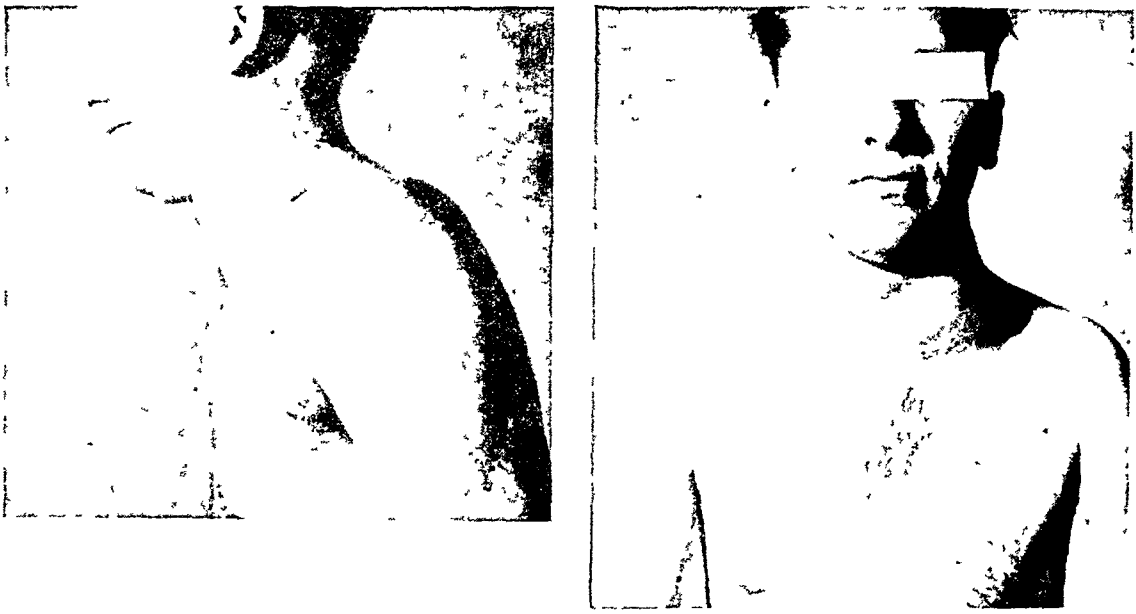


FIG. 1. A man, aged 27, complaining of sternal swelling of two and a half months' duration. Examination revealed an 8-cm., resilient, nontender, fixed prominence just to the right of the sternum at the level of the third intercostal space. Nodes were present in the left cervical, supraclavicular, and axillary regions. A clinical diagnosis of Hodgkin's disease was made. This was later confirmed by microscopic studies

and later not infrequently covering the entire body.

Herpes zoster was present in 24 cases and usually indicated perineural extension. One patient showed this type of lesion, involving the ophthalmic branch of the trigeminal nerve (deep upper cervical nodes were present), and five months later a similar involvement of the sixth right dorsal segment appeared. This is the only case of herpes zoster observed by the authors in which two segments were involved.

It is our observation in Hodgkin's disease that, while the skin frequently shows manifestations, the subcutaneous tissues and mucous membranes remain conspicuously free. We found only two cases in which subcutaneous nodules were present. This finding is in contrast to that seen in lymphosarcoma, in which disease the subcutaneous tissues and mucous membranes are frequently involved while the skin is unduly spared.

Thoracic Involvement

The mediastinum is a frequent site of disease, although it may be silent until late, and seldom is there enlargement of the mediastinal nodes without coexistent adenopathy either in the cervical, supraclavicular, or axillary regions. In the majority of cases we found the first symptom to be a noncharacteristic cough, usually nonproductive. Later, as the disease progressed, dyspnea on exertion appeared. Physical findings were not evident until the disease became advanced, and then signs of pleural effusion or, less frequently, atelectasis were discernible. Hoarseness, cyanosis, marked dyspnea, and dilated veins of the chest and neck, found so frequently in bronchogenic carcinoma, were not present.

Roentgenographically, the changes which take place in the mediastinum are indicated by a gradual transition from a thickening of the hilar areas to a widening of the mediastinum and invasion of the adjacent lung fields. We found no roentgenographic picture pathognomonic of Hodgkin's disease. The hilar shadows were usually bilateral in the superior mediastinum, and rarely was there displacement of the latter except in those cases in which pleural effusion or atelectasis supervened.

The radiographic picture of the mediastinal nodes corresponded closely to the palpatory findings in the peripheral adenopathy; that is, when a desmoplastic reaction was present in the mediastinal nodes, this reaction could be expected throughout the involved lymphoid system.

From the roentgenographic shadows we were often able to postulate the histologic findings. When the hilar involvement was irregular with radiating strands, the microscopic picture showed a predominance of fibrous tissue; when the borders of the nodes were smooth and almost cyst-

like, the microscopic picture revealed a marked pleomorphic parenchymal proliferation

In 25 patients the parenchyma of the lung showed lesions varying in size from 2 to 7 cm Roentgenographically, such a case may not be easily differentiated from a metastatic carcinoma

In 3 cases tissue for diagnosis was obtained from the bronchi On one occasion a node ruptured into the bronchus and the tissue was removed by bronchoscopic examination and in the other two instances the tissue was made available for microscopic study by postmortem examination

In contrast to other malignancies, a bloody pleural fluid, obtained by paracentesis, was rare, and despite numerous examinations for characteristic tumor cells only large, pleural, noncharacteristic mesothelial cells were found

Gastrointestinal Involvement

Hodgkin's disease seldom attacks the gastrointestinal tract, the alimentary canal was involved in only 2 cases, the stomach in one and the sigmoid in another This is in contrast to lymphosarcoma, in which the gastrointestinal tract is not an uncommon site of the disease In this connection Boyd[3] mentions that in so generalized a disease it is rather unusual to find the vast collection of lymphoid tissue in the gastrointestinal tract escaping practically intact As a result of our study of the distribution of the lesions we agree with Steiner[4] that Hodgkin's disease is most likely a disturbance of the reticuloendothelial system, since those sites of the lymphoid tissue which contain the least number of reticuloendothelial cells (nasopharynx, tonsils, thymus, ileum, and colon) were seldom involved Occasionally, extrinsic pressure defects by abdominal nodes on the adjacent stomach wall resembled closely lymphoblastomatous or carcinomatous involvement of that part

In many of the advanced cases epigastric pain, not relieved by irradiation, was a persistent symptom which on further study revealed itself to be due to erosion of the gastric mucosa on the basis of avitaminosis This clinical interpretation was proved to be correct by therapeutic and postmortem studies

Fourteen patients (4 per cent) exhibited obstructive jaundice which was usually indicative of compression of the biliary duct system The jaundice disappeared with irradiation to that area

In early cases it was not usual to find splenomegalia, but as the disease ran its course enlargement of the spleen was encountered Postmortem examination almost invariably showed some degree of enlargement of the spleen Rarely, however, did this organ enlarge below the umbilicus and almost never did it extend down to the iliac crest This is in contrast to myelogenous leukemia, in which the spleen may be high, extending not infrequently to the iliac crest

Abdominal Localization

In 27 patients the disease was confined almost entirely to the abdominal cavity The course of the disease (13 1 months from onset of symptoms) in this group was much more rapid than in the group as a whole Profound weakness, loss of weight, and intermittent bouts of fever characterized the symptomatology Cecil,[5] in describing this abdominal form of the disease, has mentioned that some of the most pronounced types of remittent fever are seen in this variety The clinical diagnosis was difficult to establish since splenic enlargement and peripheral adenopathy, when occurring, appeared only late in the course of the disease In this type of Hodgkin's disease a therapeutic test of irradiation to the abdomen resulted in a temporary amelioration of the patient's symptoms A further clue to the diagnosis was frequently obtained from the material of the sternal aspiration, the findings of which are described elsewhere in this paper In 7 cases the diagnosis was made by postmortem studies

The following case history is instructive

A patient, S G, a 40 year-old Greek man was admitted to the hospital on June 14, 1939, with the following complaints loss of weight anorexia, night sweats, and fever ranging up to 101 F of two months' duration Physical findings were negative except that the patient was emaciated and poorly developed Blood examinations and all other laboratory investigations were essentially negative

The course in the hospital included intermittent diarrhea, epigastric distress, and an irregular rise in temperature up to 102 F with a slow downhill course On September 15, 1939, laparotomy was performed A large spleen (one and a half times its normal size), firm in consistency, was the only pathologic factor disclosed On October 13, 1939 irradiation (1,200 r to anterior and posterior portals) was instituted to the upper abdomen, including the splenic area On October 30, 1939, the patient felt considerably improved, his temperature remained at a normal level The patient remained relatively well for eleven months

On October 22, 1940, asthenia, loss of weight, and elevation of temperature to 100 5 F were present Irradiation was again instituted to the lower abdomen (1 200 r to anterior and posterior portals) The patient felt improved until December 15 1940, when the original symptoms recurred A second course of radiation was given to the anterior and posterior midabdomen In April, 1941, the patient had a relapse Irradiation was directed to the upper abdomen The patient died April 18, 1941

Autopsy findings —There was no peripheral adenopathy Examination of the abdomen disclosed



FIG. 2

many small, mesenteric, periaortic, and retroperitoneal nodes, proved by microscopic study to be Hodgkin's disease The liver was somewhat enlarged, red-brown, and smooth. On section the liver architecture was maintained for the most part. However, there were several scattered areas measuring no more than 1 or 1.5 cm. in diameter, which were made up of grayish-white tissue similar to that seen in the lymph nodes. The spleen was enlarged and firm. On section, the follicles could be readily made out against their firm red pulp. In several areas in the spleen there were similar peripheral areas of grayish-white, firm tissue.

The remarkable feature of this case was the minimal amount of Hodgkin's tissue present despite the severely toxic and hyperthermic course.

Bone Involvement

Roentgenologically, osseous involvement in Hodgkin's disease has been appreciated for many years. In the group of 319 cases under discussion there was radiographic evidence of bone involvement in 20 patients (6.2 per cent), although we found no characteristic roentgenographic picture of these lymphogranulomatous foci. In most instances the lesions were osteolytic and were indistinguishable from metastatic carcinoma. However, autopsy studies proved that we were dealing with Hodgkin's infiltration of bone. The vertebral column was by far the most frequent site of these processes, and in three of the twelve cases of vertebral column involvement, collapse of the involved vertebra was noted. In these patients, however, there was no evidence of spinal cord compression. The next most frequent sites of Hodgkin's disease in bone were, in the order named: pelvis, ribs, upper end of the femora, and sternum. When the long bones were involved, the lesions were most frequently in the proximal and distal thirds.

It is worth while to mention that one patient complained of severe pain in the lower neck. Roentgen examination of the part showed a complete collapse of the seventh cervical vertebra, although there were never any neurologic signs or symptoms. After the administration of 1,800 r to the involved area, the seventh cervical vertebra almost completely disappeared, the small residual portion fusing with the first dorsal vertebra (see Fig. 2).

Two patients showed extensive, irregular, osteoblastic changes of the upper portion of the femur on which a radiographic diagnosis of either Hodgkin's disease of the bone or osteogenic sarcoma was made. Postmortem examination, however, revealed only a chronic productive osteomyelitis.

Blood and Marrow Picture

The changes found in the peripheral blood were neither typical nor constant. In most cases the white blood count was normal. The lowest was 2,950 and the highest 52,000, the latter in a patient in an advanced stage of the disease but with no evidence of infection. It was not unusual to obtain white blood cell counts varying from 20,000 to 30,000. It was noticed, however, that

many of the patients who ran a Pel-Ebstein type of fever tended to have low white blood cell counts (from 3,000 to 5,000 w.b.c.).

When patients with Hodgkin's disease complicated by leukopenia were treated with irradiation, resolution of the lymph glands in the treated area almost invariably brought about a rise in the white blood cell count. We wish to emphasize that leukopenia in Hodgkin's disease is no contraindication to the institution of irradiation, provided heavy roentgen therapy has not been administered previously.

A mild secondary anemia was commonly found and its gradation was comparable to the stage of the disease. It was unusual to encounter a severe anemia (below 2,500,000 r.b.c. count), and in no instance did we find a hemorrhagic tendency on the part of an untreated patient.

In the differential blood picture the more common findings were an increase in the polymorphonuclear cells, eosinophilia, and a slight increase in the monocytes.

Sternal aspirations were performed in 91 cases. The characteristic findings observed either singly or concurrently were:

1. A polymorphonuclear shift to the right with marked toxic granulation;
2. Increase of eosinophilia of young myeloid elements;
3. Increase in the monocytic series.

In no instance were Dorothy-Reed cells found. Other observers of the bone marrow in Hodgkin's disease (Dameshek[6] and Barasciutti[7]) reported no characteristic findings. Varadi[8] had one positive result from sternal puncture, with Sternberg cells appearing in the aspirate. He admitted, however, that this finding was exceptional.

The Effect of Pregnancy

Pregnancy occurred in 11 patients, in three of whom therapeutic abortions were performed, while in one, a miscarriage resulted. In the remaining 7 cases the pregnancies were carried to term with normal deliveries. One patient, 28 years of age, was twice pregnant. She delivered two normal children, the oldest now 10 years of age. In all instances no evidence of Hodgkin's disease could be found in the offspring.

Fortunately in these 11 patients there was no involvement of nodes about the pelvic region either before or during pregnancy. However, 9 of these patients received varying amounts of radiation to other areas of the disease. From these facts it would seem that it is safe to irradiate nodes in the cervical or thoracic regions without any untoward effects upon the pregnancy.

The average duration of life in this group was 47.28 months, as compared to a general average of 23.8 months.

It should not be concluded from the above that pregnancy prolongs the life of the Hodgkin's patient. The longer life may be explained by the patient's better physical condition which in the first instance made pregnancy possible. Moreover, we noticed no difference in the course of the disease in those patients in whom pregnancy was artificially terminated as compared with those in whom the pregnancy ran to term.

In contrast, Klawans[9] has reported a case in which the onset of Hodgkin's disease occurred during the second trimester of pregnancy, and proved rapidly fatal, although the pregnancy and the offspring were normal.

Treatment

It is accepted that even under the most optimal conditions permanent arrest of the disease has not been obtained, although with proper treatment useful life has been prolonged for many years. Fundamentally, the treatment of Hodgkin's disease resolves itself into two principles: (1) The patient should receive the smallest quantity of irradiation that is compatible with his relative well-being, just sufficient to cause gross disappearance of involved lymph nodes; (2) he should receive constant supportive hematinic therapy.

During the period in which these 319 patients were observed various radiation technics were used. Given a proven case of Hodgkin's disease, how shall it be irradiated? In our group the first area treated was the site referable to the patient's chief symptom. When the outstanding complaint was a generalized pruritus, relief of this symptom was obtained with retroperitoneal high-voltage irradiation; less benefit resulted from local, low-voltage irradiation. Several patients with this complaint in an advanced stage and refractory to roentgen therapy were greatly aided by diuretics. When the patient had symptomatic nodal enlargement, treatment was directed to the most prominent site of involvement.

In the usual case we utilized a voltage of 200 kv., a filtration of ½ copper and 1 aluminum, and a portal of 10 by 15 cm. with a skin-target distance of 40 to 50 cm. We found that voltages either higher or lower were inferior in the results obtained.

The patient was treated three times a week with a dosage of 150 r per treatment until a total dosage of 1,200 to 2,000 r (measured in air) had been delivered to the skin area. After this course of irradiation, roentgen therapy was withheld for a period of two to six weeks. The other sites

of involvement were then treated in the same fashion.

Shortly after the institution of therapy, a gradual regression in the size of the involved nodes with a general improvement in the well-being of the patient was noticed. No untoward reactions appeared with this method of irradiation.

Eight patients were irradiated with a modified Heublein method of therapy, that is, half of the body was treated daily with a low intensity of roentgen output. Our results were so discouraging, due to the severe leukopenia that resulted, that this method was soon discontinued. Two of the patients developed pneumonia following a lowering of the white blood cells to 3,100 and 3,000, respectively. Medinger and Craver,[10] however, treated 94 patients with total body irradiation and found that this method of therapy produced great palliation.

Two patients who were in good general condition and presented only one area of gross disease were irradiated in a cancerocidal fashion with the thought in mind of destroying the disease permanently. The results were disastrous. One patient, after receiving 3,200 r to the left cervical region at a daily rate of 200 r, became markedly asthenic, began to vomit, and developed progressive jaundice. She died three and one-half months after the institution of irradiation.

In those patients in whom radiation was used as a prophylactic measure, that is, following disappearance of irradiated nodes treatment was given to areas which were not yet grossly involved, the results were less gratifying. This prophylactic method is contrary to the principle of administering the minimal amount of radiation that is necessary to bring about resolution of the gross disease. It has long been recognized that protracted irradiation interferes with the hemopoietic system, and, we believe, lowers the general resistance of the individual to any disease.

As a trial method we treated three individuals with high-voltage therapy directed at the pituitary gland. However, no definite conclusions could be drawn from the results obtained.

Eighteen patients with elevated temperatures were treated with chemotherapy with no appreciable lowering of the fever.

Summary

1. The salient clinical features and relative value of the different methods of therapy are discussed from an analysis of 319 proved cases of Hodgkin's disease.

2. *The diagnosis of Hodgkin's disease* can frequently be made by deft palpation of the enlarged lymph nodes.

3. Thirteen cases of sternal node involvement are described and their pathognomonic characteristics stressed.

4. In 39 per cent of the patients, the skin was involved. However, only a few presented a characteristic picture upon microscopic study.

5. No roentgenographic findings in the chest that are characteristic only of this disease were found. The pathology was indicated by a gradual transition from a bilateral thickening of the hilar areas to a widening of the mediastinum and invasion of adjacent lung fields.

6. In our series, Hodgkin's disease of the gastrointestinal tract occurred in only two patients.

7. In ambulatory patients it was unusual to palpate the spleen.

8. Abdominal variety of the disease occurred in 27 patients with profound weakness, loss of weight, intermittent bouts of fever, and a more rapid course characterizing the symptomatology.

9. Marked collapse of a vertebra may occur without symptoms of spinal-cord compression.

10. The characteristic sternal marrow findings observed either singly or concurrently were: (*a*) a polymorphonuclear shift to the right with marked toxic granulation; (*b*) increased eosinophilia of young myeloid elements; and (*c*) increase in monocytic series.

11. Pregnancy had no effect on the course of the disease. There was no evidence of Hodgkin's disease in the offspring.

12. Treatment consists of the administration of the smallest quantity of irradiation that will effect resolution of the gross disease together with the continued administration of hematinics.

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We are indebted to Dr. Louis Weiner, hematologist at Queens General Hospital, for the work in sternal aspirations.

IT'S ALL GREEK

"Did you hear," asked the sophomore, "about our cross-eyed Greek professor getting fired?"

"No," replied the innocent freshman, "why was he let out?"

"Because he couldn't control his pupils."—*J. Am. Inst. Homeopath., April, 1945*

ANTERIOR POLIOMYELITIS—THE 1944 EPIDEMIC AT MEADOWBROOK HOSPITAL

J W LANDSBERG, M D , Sc D , Hempstead, New York

(From the Meadowbrook Hospital, Nassau County General Public Hospital, Hempstead, New York)

MEADOWBROOK Hospital, the county hospital of Nassau County, has a contagious diseases ward comprising about thirty beds During the anterior poliomyelitis epidemic of the summer and fall of 1944, the majority of patients with this disease occurring in Nassau County were hospitalized in this contagious diseases unit

Since the opening of the above institution in 1935, the poliomyelitis epidemic of 1944 was the largest in the history of the hospital The greatest number of cases, previous to the present epidemic, numbered 81 for any one year (1935) The lowest number of cases observed was 3 in the year 1938 Each year, for the past ten years, cases of poliomyelitis have been seen in this hospital For the nine years preceding 1944 there was a total of 167 cases of anterior poliomyelitis For the year of 1944, which is the basis of the present report, there was a total of 171 cases

The first case was admitted June 26, 1944, the last case was admitted December 7, 1944 The greatest number of cases admitted in any one day was 7 (August 30, 1944) On a monthly basis the number of cases admitted was as follows

June	1 case — 0	5 per cent
July	7 cases— 4	1 per cent
August	74 cases—43	3 per cent
September	56 cases—32	8 per cent
October	22 cases—12	9 per cent
November	10 cases— 5	9 per cent
December	1 case — 0	5 per cent

In general, the cases admitted to Meadowbrook Hospital came from all sections of Nassau County Since it is not the purpose of the present communication, no attempt was made to study the epidemiology of the incidence of these cases in detail A course examination of the distribution reveals no definite localization There were also several cases from an adjoining county

Of the 171 cases, 100, or 58 5 per cent, were males and 71, or 41 5 per cent, were females There were, of the total number of cases, 167 (97 7 per cent) white and 4 (2 3 per cent) colored patients In the colored group there was one male and three females These findings have been summarized in Table 1

When the cases were grouped according to age, using the usual statistical procedure of those under 1 year, and five-year intervals thereafter, it was observed that the greatest number of cases fell in the 5-to-10-year-old group There were 58 cases, or 33 5 per cent, in this group Three patients were under one year of age, while the oldest was 38 years old The next largest group ranged from 10 to 15 years old, in which there were 38 individuals, or 22 2 per cent of the total (Table 2)

It was observed also that 149 cases, or 87 per cent of the total number of cases, were aged 20 or below On this basis the data were regrouped into one-year intervals (Table 3) From this table it may be seen that the scatter was even greater than in the five-year groups (Table 2) The largest group was comprised of 6-year-old patients, in which there were 22 cases, or 14 8 per cent The next largest group was composed of patients 4 years of age, in which there were 17 cases, or 11 3 per cent (Table 3)

It was of interest to consider the number of days from the onset of the symptoms to the time of admission to the hospital Two patients were admitted who had had symptoms less than twenty-four hours The majority of patients were admitted after having had symptoms for three days or less Thirty three patients, or 19 5 per cent, had had symptoms for one day, and the same number had had symptoms for two days before admission (Table 4) Twenty-two patients, or 13 0 per cent of the total, were not admitted until the seventh day of illness (Table 4) Each of the cases in this group began with the common symptoms of upper respiratory infection They did not come into the hospital until other symptoms developed, usually a day prior to admission There was one patient who had had symptoms for seventeen days before the day of admission

Although the sequence of the development of the symptoms of this disease was difficult to ascertain, either from the patient or his family, it seems to fall into a somewhat general pattern In view of the discrepancies in the relating of the symptoms, as well as the fact that histories were recorded by different individuals, they cannot be taken categorically as absolutely final The general pattern usually started with headache, more or less generalized, which disappeared in about twelve hours Following this there were several episodes of nausea or nausea and vomiting, with an associated diarrhea in some instances Then occurred a return of the headache confined

TABLE 1.—The Number of Males and Females, White and Colored, Having Anterior Poliomyelitis

	Male	Female	Total
White	99 (57.9%)	68 (39.8%)	167 (97.7%)
Colored	1 (0.6%)	3 (1.7%)	4 (2.3%)
Total	100 (58.5%)	71 (41.5%)	171 (100.0%)

TABLE 2.—Distribution of Cases of Poliomyelitis, According to Age, When Grouped in Five-Year Intervals

Age in Years	Number of Cases	Percentage
0 to 1.0	3	1.7
1.0 to 4.9	28	16.4
5.0 to 9.9	58	33.5
10.0 to 14.9	38	22.2
15.0 to 19.9	23	13.4
20.0 to 24.9	9	5.6
25.0 to 29.9	8	4.7
30.0 to 34.9	1	0.5
35.0 to 39.9	2	1.5
40.0	1	0.5
Total	171	100.0

primarily to the frontal areas. After these symptoms occurred either (*a*) pain in the cervical region of the spine, (*b*) stiffness of the neck, or (*c*) stiffness of the neck with pain in the cervical and thoracic region on flexion of the neck.

It should be pointed out that on physical examination there is a difference between the neck rigidity of meningitis and the neck stiffness of anterior poliomyelitis. In meningitis the neck is boardlike and the patient may be more or less suspended by holding the head, without any flexion of the neck; in anterior poliomyelitis the neck is not rigid but stiff; it may be partially flexed provided the resistance of the patient, due to the pain involved, is overcome.

In the present series the incidence of the above symptoms was essentially as follows:

(*a*) Headache with subsequent disappearance—92 cases, or 54.5 per cent.

(*b*) Nausea alone—12 cases, or 7.1 per cent.

(*c*) Nausea and vomiting—59 cases, or 34.7 per cent.

(*d*) Diarrhea—8 cases, or 4.8 per cent.

(*e*) Return of headache (after twelve hours)—24 cases, or 14.1 per cent.

(*f*) Pain in cervical region without stiffness—25 cases, or 15.3 per cent.

(*g*) Stiff neck without pain—12 cases, or 7.4 per cent.

(*h*) Stiff neck with pain on flexion—88 cases, or 54.0 per cent.

By far, the commonest symptoms encountered were headache with subsequent disappearance, 54.1 per cent, and stiff neck with pain on flexion, 54.0 per cent. Those patients having beginning symptoms of upper respiratory infection, 27, or 17.0 per cent, were finally admitted with one of the above symptoms.

An attempt was made to evaluate the symptoms occurring in the extremities of these individuals. At the time of admission such evaluation was difficult, i.e., did the patient have a weakness of an extremity, or did he refuse to move it because of the associated pain on motion? In the younger age groups examination was difficult in some instances, particularly because of a lack of cooperation. Since the physical examination was done by different individuals, this factor also influenced the findings. With these facts in mind, in the material presented (symptoms in the extremities), weakness, pain, and paralysis were considered as a group. Since paresis and paralysis were noted at time of discharge and considered later in the present paper, the above grouping may be countenanced here.

There were 17 patients, or 10 per cent, who had symptoms involving the upper extremities; while 73, or 43 per cent, had involvement of the lower extremities. Twelve patients, or 7 per cent, had involvement of both upper and lower extremities. In 68 cases, or 40 per cent, neither the upper nor lower extremities were involved. Eighty-four patients, or 49.1 per cent, complained of either pain, paralysis, or paresis of the back; the majority complained only of pain. Difficulty in swallowing was experienced by 9, or 5 per cent of the patients, and there were 5, or 3.0 per cent, who had facial paralysis.

At the time of admission 41 patients, or 24.3 per cent, had a temperature ranging from 101 to 102 F. Thirty-eight patients, or 22.3 per cent, had a temperature range from 102 to 103 F. Those patients having a temperature above 103 F. composed 17.6 per cent of the total number of cases. About the same percentage, 18.2 per cent, had a temperature of less than 100 F. (Table 5).

A spinal puncture was done in every suspected case of anterior poliomyelitis and the following determinations were made: initial pressure, cell count, differential cell count, protein, sugar, and chlorides.

Pressure.—The normal spinal-fluid pressure, according to Cecil, is usually between 100 and 150 mm., using an aqueous manometer; a pressure above 200 mm. is suspiciously high. In the present series 100 patients, or 75.2 per cent, had a spinal-fluid pressure of 150 mm. of water or less. Twenty patients, or 15.4 per cent, had a pressure of from 150 to 200 mm., while 13, or 9.4 per cent, had a pressure of over 200 mm. It is

TABLE 3.—Distribution of Poliomyelitis Cases under 20 Years of Age When Grouped in One Year Intervals

Age in Years	Number of Cases	Percentage
1 0 to 1.9	3	2 0
2 0 to 2.9	4	2 7
3 0 to 3.9	5	3 3
4 0 to 4.9	17	11 3
5 0 to 5.9	12	8.1
6 0 to 6.9	22	14 8
7 0 to 7.9	6	4 0
8 0 to 8 9	9	6 1
9 0 to 9 9	11	7 4
10 0 to 10 9	9	6 0
11 0 to 11.9	8	5 3
12 0 to 12.9	7	4 7
13 0 to 13.9	4	2 7
14 0 to 14.9	9	6 1
15 0 to 15.9	4	2 7
16 0 to 16.9	8	5 3
17 0 to 17.9	6	4 0
18 0 to 18.9	1	0 7
19 0 to 19 9	3	2 0
20 0	1	0 7
Total	140	

TABLE 4.—Time in Days Between Onset of Symptoms and Admission to the Hospital

Days	Number of Cases	Percentage
0 to 23 9 hrs.	2	1.2
1 0 to 1 9	33	19.5
2 0 to 2 9	33	19.5
3 0 to 3 9	26	15.4
4 to 4 9	15	8 6
5 to 5 9	16	9 5
6 to 6.9	5	2.9
7 to 7 9	22	13 0
8 to 8 9	5	2.9
9 to 9 9	4	2.4
10 to 10 9	5	2.9
12 to 12.9	1	0.5
14 to 14 9	2	1 2
17 to 17 9	1	0.5
Total	169	100 0

obvious, therefore, that only a few of the present patients showed an increase in spinal-fluid pressure.

Cell Count.—J. B. Ayer, writing in Cecil,[1] feels that five cells observed in the spinal fluid are pathologic and require an explanation. In the present series, 6 patients, or 3.9 per cent, showed no cells at all. Fifteen patients, or 9.7 per cent, had less than five cells per cmm. One hundred and thirty-three patients, or 86.4 per cent, had over ten cells and less than two hundred cells per cmm.

Twenty-one patients, or 13.5 per cent, had more than two hundred cells per cmm. From these data it is obvious that the majority of patients had a sufficient increase in the cell count to denote pathology.

Differential Count.—In each case in which there was an increase in the cell count, the predominant type of cell was the lymphocyte. In 39 cases the lymphocytes averaged between 90 and 99 per cent of the total cells while in 13 there were 100 per cent lymphocytes.

Protein.—The normal protein range is given as 20 to 40 mg. per 100 cc. (Cecil).[1] Forty-three patients, or 27.9 per cent, had a protein level of 45 0 mg. per 100 cc. or less. Twenty-six patients, or 16.7 per cent, had a protein level of 50 mg. while 85, or 55.4 per cent, had a protein level above 60 mg.

Thus, in over half the total cases reported, the protein level was increased.

Sugar.—normal.

Chlorides.—normal.

Summary of Laboratory Findings

Spinal Fluid

A. Pressure
   1. Pressure of 150 mm. or less, 100 cases, or 75.2 per cent
   2. Pressure of 150 mm. to 200 mm., 20 cases, or 15.4 per cent
   3. Pressure over 200 mm., 13 cases, or 9.4 per cent

B. Cell Count
   1. Six patients, or 3.9 per cent, showed no cells at all
   2. Fifteen patients, or 9.7 per cent, had less than five cells per cmm.
   3. One hundred and thirty-three patients, or 86.4 per cent, had two hundred or less cells per cmm.
   4. Twenty-one patients, or 13.5 per cent, had more than two hundred cells per cmm.

C. Differential Cell Count
   1. Cell type predominantly lymphocytes

D. Protein
   1. Forty-three patients, or 27.9 per cent, had a protein level of 45 mg. per cent or less
   2. Twenty-six patients, or 16.7 per cent, had a protein level of 50 mg. per cent
   3. Eighty-five, or 55.4 per cent of the patients, had a protein level above 60 mg. per cent

E. Sugar—normal

F. Chlorides—normal

At the time of discharge from the hospital each anterior poliomyelitis patient was examined by the orthopedic service and the degree of disability was evaluated. There were 110 cases, or 64.4 per cent of the total number of cases, with some degree of residual paralysis. The disability was classified as paresis, paralysis, or both. Of the upper extremities, 35 patients, or 20.5 per cent, had some residual effects; of the lower extremities, 59 patients, or 34.5 per cent, had residual effects. Involvement of both upper and lower extremities occurred in 16 cases, or 9.4 per cent.

TABLE 5.—Temperature on Admission

Temperature	Number of Cases	Percentage
98– 98.9	13	7.6
99– 99.9	18	10.6
100–100.9	30	17.6
101–101.9	41	24.3
102–102.9	38	22.3
103–103.9	20	11.8
104–104.9	6	3.5
105–105.9	4	2.3
Total	170	100.0

TABLE 6.—Residual Paresis and Paralysis of Extremities Upon Discharge

	Paresis	Paralysis	Paresis and Paralysis	Total
Upper extremities	22 (12.9%)	10 (5.8%)	3 (1.8%)	35 (20.5%)
Lower extremities	29 (17.0%)	18 (10.5%)	12 (7.0%)	59 (34.5%)
Upper and lower extremities	8 (4.8%)	5 (2.9%)	3 (1.7%)	16 (9.4%)
Total	59 (34.7%)	33 (19.2%)	18 (10.5%)	110 (64.4%)

Paresis occurred in 34.7 per cent, paralysis in 19.2 per cent, and both paresis and paralysis occurred in 10.5 per cent of all cases. There was more involvement of the lower extremities than the upper. These data have been summarized in Table 6.

Of the total number of cases there was one case of paralysis of the muscles of deglutition. Paralysis of the facial muscles occurred in 8 cases, and of the abdominal muscles in 3 cases. There were 7 cases which required the use of the respirator. In all there was a total of eight deaths, which may be attributed to either the bulbar or ascending type of paralysis. Of the eight deaths, three occurred in the respirator cases.

Two of the patients with poliomyelitis were also pregnant. One patient had a pregnancy of eight months' duration, while the other was four months' pregnant. Three days after admission the patient with the eight months' pregnancy was placed in a respirator because of respiratory difficulty. Eleven hours later the patient expired, a postmortem Cesarean section was done, and a live premature female child was delivered. The other case (four months' pregnant) had paralysis of both quadriceps and some weakness of the abdominal and spinal muscles. This patient was transferred to another hospital for convalescent care.

Included in this series, also, were five members of the nursing staff of Meadowbrook Hospital—four student nurses and one graduate clinical instructor. Two of the student nurses had no known contact with the contagious diseases service. One student nurse developed poliomyelitis one day after being assigned to the contagious diseases ward. The graduate nurse was present and assisted at the first physical examination and spinal puncture of one of the above students; about twenty days later a diagnosis of poliomyelitis was made in this same person. For two weeks before the diagnosis was made this person had had symptoms of marked upper respiratory infection. The last student nurse to acquire the disease worked on a ward for a period of several weeks in which there were convalescent poliomyelitis cases. No individual who was hospitalized for some other cause acquired poliomyelitis during the entire epidemic, while a patient at the hospital.

In view of the epidemic proportions of this disease, it is of interest to consider the days of hospitalization. The greater proportion of the patients, 89.4 per cent, were hospitalized for a period of twenty-nine days or less. The average stay of this group was 10.1 days; the majority spent less than seventeen days. The remainder, 10.6 per cent, were hospitalized for from thirty-six to ninety-four days inclusive; these patients had an average stay of fifty-five hospital days. This group was composed, by and large, of those individuals awaiting admittance to other institutions for muscle re-education and of the respirator cases.

The treatment of these patients involved the routine procedures of symptomatic care. In addition, each patient received orthopedic evaluation of the amount of disability and the treatment thereof. Fracture boards and foot boards were prescribed in those cases in which they were indicated. All patients except 3 were given Kenny packs,* and a program of muscle exercise (active and passive), in those cases in which it was indicated, was carried out by trained workers.*

It is of interest to compare the findings of the present epidemic (1944) with those reported for the largest previous epidemic at Meadowbrook Hospital (1935). The findings of the 1935 epidemic were reported briefly by Buse and Miele (1935).[2] Although the number of cases in 1935, 82 in all, was just under half the number, 171, reported for 1944, and on such a basis an absolute comparison is not valid, it is of interest to compare the relative percentages. This comparison is summarized in Table 7.

The percentage of white patients for the two years is essentially the same. The number of colored patients was greater in 1935, but this may be explained on sampling variation alone. There was a greater number of adults in the 1944 epidemic. The ratio of males to females is essen-

* These workers were supplied by the Nassau-New York Chapter of the National Foundation for Infantile Paralysis, Inc.

TABLE 7.—A Comparison of Anterior Poliomyelitis Findings at Meadowbrook Hospital for the Years 1935 and 1944

	Total Cases	White	Colored	Adults	Male	Female
1935	82	94 0%	6.1%	3.8%	60.0%	40.0%
1944	171	97 7%	1 7%	12 8%	58.6%	41.4%

	Headache	Stiff Neck	Vomiting	Nausea	Upper Respiratory Infection	Paralysis	Deaths
1935	97.0%	90 3%	64 6%	80 5%	17.8%	40 0%	4.8%
1944	53.8%	51.5%	34 6%	7 0%	16.9%	19.2%	4.7%

tially alike for the two epidemics. The incidence of paralysis was greater for 1935 (40.0 per cent) than for 1944 (19.2 per cent). The percentage of deaths for the same years is strikingly similar. In each epidemic the symptoms of stiff neck and headache were found most frequently. In the 1935 epidemic 22 patients, or 24.8 per cent of the total number, were reported as having abdominal pain, and Buse and Miele point out that on two occasions such patients were admitted with a diagnosis of acute appendicitis. This symptom was not observed at all in any cases of the 1944 epidemic. It may be pointed out also that the incidence of nausea and vomiting was higher in the 1935 epidemic (Table 7). From these figures it appears that the symptoms of gastrointestinal disturbances were more frequent in 1935 than in 1944.

Thirty-six patients were sent into the hospital with a provisional diagnosis of anterior poliomyelitis, which after further study was diagnosed as some other disease. The largest part of this group consisted of 7 patients with upper respiratory infection; tonsillitis, 4 cases; gastroenteritis, 3 cases; meningitis, 2 cases; osteomyelitis, 2 cases; diarrhea, 2 cases; diagnosis undetermined, 3 cases. There was 1 case each of the following diseases sent in as poliomyelitis: subarachnoid hemorrhage; rheumatic heart disease; hypertension; arthritis; spastic diplegia; myositis; brain tumor; pneumonia; pleurisy; croup; phlebitis; otitis media; hysteria.

Summary

1. There were 171 patients with anterior poliomyelitis admitted to Meadowbrook Hospital between June 26 and December 7, 1944. The largest number, 74 cases, or 43.3 per cent, were admitted in the month of August.

2. The patients admitted to this hospital came from all sections of Nassau County.

3. Of the total number of patients, 100, or 58.5 per cent, were males and 71, or 41.5 per cent, were females. There were 167 (97.7 per cent) white and 4 (2.3 per cent) colored patients.

4. There were 149 patients, or 87 per cent, aged 20 or less. The majority of patients in this group was between 4 and 6 years old. The oldest patient observed was 38 years old.

5. The majority of the patients were admitted after having had symptoms for three days or less. Those having beginning symptoms of upper respiratory infection were not admitted, on the average, for seven days.

6. The primary symptoms were generalized headache (disappearing after 12 hours), several episodes of nausea and vomiting, return of headache (usually frontal in character), pain in cervical region of spine, stiffness of the neck, and stiffness of neck with pain on flexion. Commonest symptoms were headache, 54.1 per cent, and stiff neck with pain on flexion, 54.0 per cent.

7. On admission 10 per cent of the patients had pain, weakness, or paralysis in the upper extremities; 43 per cent had the same symptoms in the lower extremities. Difficulty in swallowing was experienced by 9 patients.

8. All patients received a spinal puncture; only in a few instances was the pressure increased; the cell count was increased in 86.4 per cent of the cases; the differential count showed an increase in lymphocytes; the protein was increased in half the cases; sugar and chlorides were normal.

9. At discharge, 64.4 per cent of the patients had some residual paresis or paralysis. Involvement of upper extremities occurred in 20.5 per cent; of the lower, 34.5 per cent; both upper and lower, 9.4 per cent.

10. There were 7 patients who required the use of the respirator. In all there were eight deaths, attributable to either the ascending or bulbar type, of which three were respirator patients. There were two patients who were permanant, one of whom died.

11. Five members of the nursing staff acquired poliomyelitis. Three of these had no exposure to the disease while working in the hospital; one had had exposure to [illegible] the acute stage, while another was [illegible] individuals receiving convalescent [illegible] tient hospitalized for any other [illegible] the disease.

12. The greater portion [illegible] cent) were hospitalized for [illegible] average time [illegible]

13. The present findings are compared with the findings of the 1935 epidemic at the same institution.

14. A list of other conditions admitted as poliomyelitis is presented.

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MICHAEL UNDERWOOD AND THE FIRST DESCRIPTION OF INFANTILE PARALYSIS

A recent request directed to the Richmond Academy of Medicine by Dr. Ludwig Hektoen, for a photostat of the first description of anteropoliomyelitis, which is reputed to be found in the first edition of Underwood's "A Treatise on the Diseases of Children," brought to light several interesting facts: first, that the earliest description of this disease is to be found in the second edition, and not in the first edition as is commonly believed; second, that the first edition is an extremely rare book. Evidently it was not available to Garrison when he wrote his "History of Pediatrics," for he erroneously stated (p. 78) that the 1784 edition contains the first description of poliomyelitis. The only copy of the 1784 edition listed in the Union Catalogue of the Library of Congress is that belonging to the Richmond Academy of Medicine. The Army Medical Library and several other libraries have copies of the second (1789) edition. The earliest edition in the collections of the Library of Congress is that which was published in Philadelphia in 1793.

The first edition is a little book of 288 pages, $16^1/_2$ by $9^3/_4$ cm. Its title page reads: A/ Treatise/ on/ The Diseases of Children,/ With Directions/ For the Management of Infants/ From the Birth;/ Especially/ Such as are brought up *by hand.*/ By Michael Underwood, M.D.,/ Licentiate in Midwifery/ of the/ Royal College of Physicians, in London,/ and/ Practitioner at the British Lying-In/ Hospital./ *Ornari Res ipsa negat, contenta doceri.* Hor./ London,/ Printed for J. Mathews, No. 18, Strand./ MDCCLXXXIV. Inscribed on the flyleaf is "Sir John Elliott, Bart. With author's best Respects."

Dr. Hektoen sent us a typescript of the description of the disease from the second edition. There is nothing in the table of contents of the first edition that corresponds to this account and we went over the first edition page by page and found no such description. We are forced therefore to conclude that the description that occurs in the second (1789) edition is the earliest description of the disease. It was a comfort to find that the late Dr. John Rühral (*Am. J. Dis. Child.* 40: 1312 (1930)), came to the same conclusion.

Michael Underwood, 1736–1820, man-midwife, was born in Surrey. He studied at St. George's Hospital under Sir Caesar Hawkins and also saw something of the practice of John Freke. He studied for some time in Paris, and practiced for some years in Great Marlboro Street, London, where eventually he limited his practice to women and children. On April 5, 1784 he was admitted a licentiate in midwifery of the College of Physicians of London, and was the last survivor to bear the title, man-midwife. He was attached to the British Lying-In Hospital and attended the Princess of Wales at the birth of the Princess Charlotte. His treatise on the diseases of children was the best on that subject which had appeared in English. (D.N.B.)

That an obstetrician should write the best book on pediatrics seems strange to us today. However the combining of the two branches was common in England and this country in the eighteenth century. The teaching of obstetrics in our medical schools was always combined with some other branch. Thus the first professor of obstetrics in the United States was also the professor of anatomy. Dewees, the first American to write a System of Midwifery, also wrote a book on the diseases of children. Interestingly enough, Samuel Merriman, the great London obstetrician, edited and revised the eighth edition of Underwood's treatise on diseases of children. It is natural that this combination should have begun in England, where the men-midwives and obstetricians have always been medically minded. In France, on the other hand, and in Germany, the surgical side of obstetrics was developed. It is true that the obstetric forceps was invented in England, but it was done by a Frenchman. Paré reintroduced podalic version, and Sigault devised and performed the operation of symphysiotomy in France. In 1580 Rousset published a book on Cesarean section and reported 15 cases. In the meantime, in England, William Harvey wrote a monumental work on embryology and in 1774 William Hunter published his beautiful atlas on the human gravid uterus, while Charles White, Thomas Denman, John Clarke, and Alexander Gordon were making studies which Oliver Wendell Holmes later used so effectively to prove the contagiousness of puerperal fever.

Not all of Underwood's published work had to do with diseases of children. His "treatise upon ulcers of the legs; in which former methods of treatment are candidly examined and compared with one more rational and safe, proving that a perfect cure may generally be effected more certainly, without rest and confinement, than by the strict regimen in common use; with an introduction on the process of ulceration and the origin of pus laudabile. To which are added hints on a successful method of treating some scrophulous tumors, and the mammary abscess and sore nipples of lying-in women," appeared in 1783. This went through a number of editions and was translated into French and German. Of his treatise on the diseases of children the Catalogue of the Surgeon-General's Library lists some sixteen or seventeen editions: London 1789, London 1797, London 1799, London 1805, London 1819, London 1827, Philadelphia 1793, Boston 1806, Philadelphia 1818, Philadelphia 1841, Paris 1786, Paris and Montpellier 1823, Leipzig 1848, Philadelphia 1802, and London 1835.—*Virginia M. Monthly, March, 1945*

COITUS, IMPOTENTIA, AND ANGINA PECTORIS

M M Melicow, M D , New York City

(From the Department of Urology, College of Physicians and Surgeons, Columbia University)

COITUS, impotentia, and angina pectoris are subjects of interest to every man The urge for a satisfactory sex life, the fear of impotentia, and the dread of angina are experienced by many Our civilization has evolved economic, moral, and religious codes and taboos which have inhibited the free exercise of the sexual instincts as enjoyed by primitive man It has not supplied efficient adjustments to prevent or correct the resultant conflicts Ignorance of the anatomic, physiologic, and psychologic aspects of sexual relationship is widespread

Disturbances have, therefore, increased greatly It is probable that most men experience some degree of sexual inadequacy at some time, even in their youth, and that, with many, understanding is reached only after a series of awkward and at times devastating experiences The struggle between the external curbs by codes and the inward longings of the libido in the obfuscated sometimes lead to major difficulties Some develop a "lack-of-manhood" inferiority complex which they diligently try to disprove the rest of their lives Among these are the Don Juans, the playboys, the "sugar daddies," many of the 'confirmed" bachelors, and the maid- or secretary kissing husbands Depressed chronic masturbators, intraverts, marital failures, and suicides constitute another group Many of the maladjusted short-circuit themselves into compulsion neuroses, and become fanatics, bigots, prohibitionists, cultists, antivivesectionists, and antiracialists

Modern life has multiplied the stresses, strains, worries, and irregularities of existence, it has stepped up the relatively slow, smooth tempo of other eras The pursuit of happiness has become a breathless pursuit with happiness no longer enjoyable—often due to dyspnea—when the goal is reached The repeated surging of psychic or somatic urging against the rock of frustration, the continued drive in spite of body fatigue, the wasting by dissipation and corrosion by irritants, result in a state of agitated tension interminably prolonged. The arterioles become tense and when the coronary arteries fall into that habit then troubles begin An understanding of the limits of cardiac reserve, of dietary essentials and balance, and of the value of physical relaxation and emotional equanimity is generally lacking Knowledge even of the rudiments of the cardiovascular apparatus, its function and reserve, is possessed by only a few Cardiac disturbances are common and on the increase, cardiac insufficiency, due to coronary spasm or occlusion, is an everyday occurrence even in relatively young men Society has made self-preservation more difficult (strain on the cardiovascular apparatus), and multiplied the exigencies of race preservation (sex function) It has not given the individual sufficient enlightenment and understanding to make proper adjustments in either instance For indeed, were modern man given command of some of our accrued knowledge he should be able to engage in the struggle for existence without rapid destruction of his heart muscle, and enjoy sex-life to a degree unknown and unappreciable to primitive man

Proper use of the cardiovascular apparatus requires a harmonious balance between activity and rest Neither the systole nor the diastole of life should be excessive The man who works feverishly, eats irregularly, and "plays" tensely burns the candle at both ends and at the middle Life for many is a jumble of hard work and rapid overeating, an excess of alcohol, caffeine, and nicotine, and a succession of successes or failures imbricated with vexations, worries, and excitations From early youth many diligently proceed to destroy an otherwise inherently excellent cardiovascular system The art of living is something which few learn before damage is done In short, in order to conserve one's cardiovascular apparatus it is necessary to maintain

1 A state of physical, mental, and emotional equanimity

2 Adequate work, judicious play, and beneficial rest

3 Avoidance of the lethal combination of hard work and irritation

4 A simple balanced diet sufficient but not excessive in calories and rich in vitamins and minerals

5 Avoidance of an excess of alcohol, caffeine, and nicotine

6 An avocation—it is selective occupational therapy

7 Aquisition of the ability to "untense

The ideal sex relationship occurs when two ardent, healthy, enlightened individuals of opposite sex, anatomically sufficient and physically, spiritually, and emotionally harmonious, cohabit under mutually satisfactory conditions,

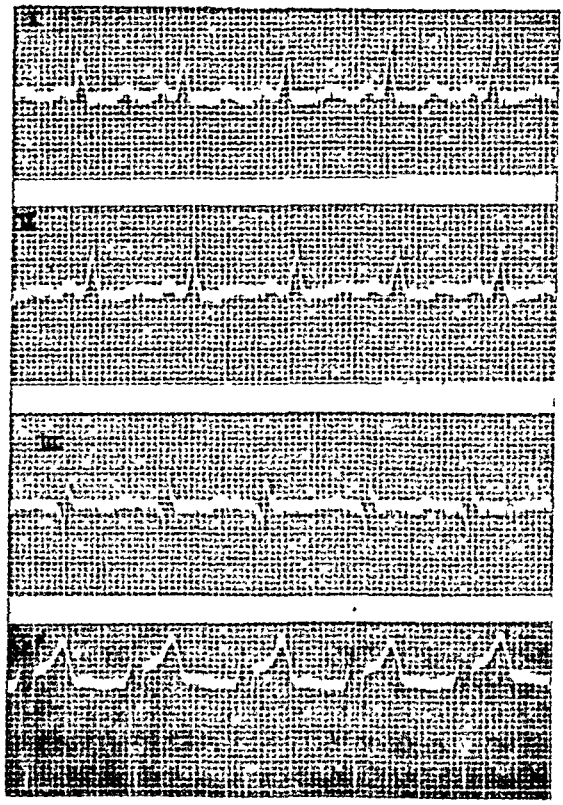


FIG. 1. Electrocardiogram: Case 1. "The Q3, moderately broad QR-S, prominent Q3, depression of RT1 and 2 with small T2 and inverted T3, all together form a borderline abnormal tracing suggesting presence of myocardial changes such as due to coronary artery disease."

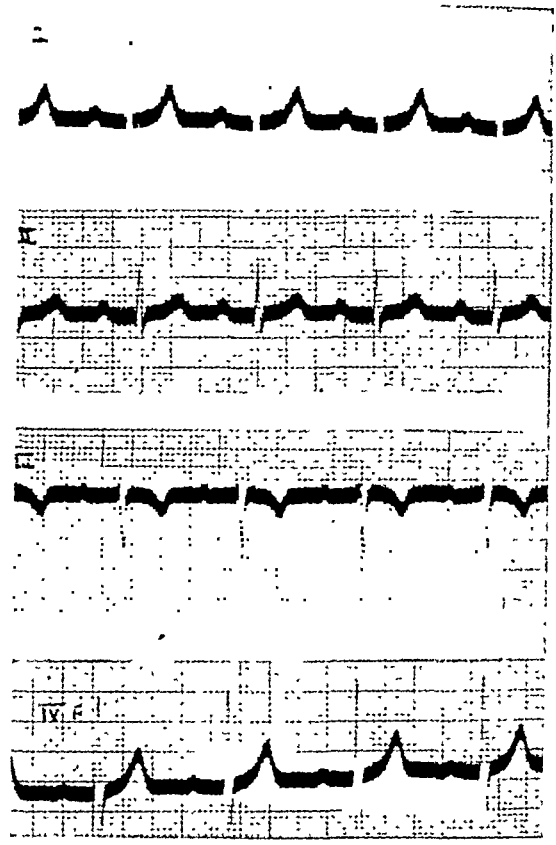


FIG. 2. Electrocardiogram: Case 2. "Left axis deviation and conduction time measuring 0.24 to 0.25 seconds."

the pleasurable experience lasting for a length of time sufficient to allow a simultaneous thrill-bearing orgasm which is followed either by an exaltation of spirit and general somatic well-being, or by a delightful animal fatigue. It follows, then, that ideal coitus is rare and deviations are common. The greater the deviation, the greater the sexual inadequacy. It follows also that the factors affecting potency are numerous, and that any one factor, however trivial, may weaken or suspend it.

The combination of prolonged, tense, and vexatious work, coupled with gnawings of desire and disappointments, rapidly undermine the psychic and somatic well-being of many individuals. It can lead to an interplay of physical complaints with psychotic motivations. The vise-like headache of frustration, the insomnia of worry, the jitteriness of fear and of fretful fatigue are some of its manifestations. In some patients a complex of symptoms is developed whose understanding and interpretation may require a general medical, urologic, and psychologic approach. The patient is usually unaware of the significance of the symbiosis of these factors, and unfortunately his physician often does not seek out the deep personal conflicts that engender them. The urologist is usually interested in only the posterior urethra and gonads, and the psychiatrist commonly digs into the subconscious. Though each may be correct in his diagnosis and attempts at therapy, the patient is receiving incomplete attention and piecemeal treatment. He is not taken as an entity and, disappointed, wanders from one doctor to another. The author presents two such cases. Although aware that the number is small and, from the point of view of statistics, valueless, on the other hand, he is convinced that the thorough and sympathetic understanding of even one case can establish principles of approach and handling which usually are lost in the cold columns of extensive statistics.

Case Reports

Case 1.—A 56-year-old superintendent of a private school was referred for treatment of impotentia. He had been married for thirty years, was the father

of two children, 20 and 24 years old, and until three years ago was relatively potent He first noted premature ejaculations, later erections became unsatisfactory, and for the last six months had ceased altogether His physician treated him with oral doses of strychnine and massages of the prostate gland On examination I found a well-proportioned, overweight (208 pounds) individual looking older than his years The blood pressure was 170/110, the abdomen was negative, and the external genitalia were well-developed The prostate was moderately enlarged, firm but not hard The urine was negative for albumin or sugar, and the microscopic examination revealed a few white and red blood cells per high power field The basal metabolic rate was −20 per cent The cysto urethroscopy was essential negative the prostatic intrusion was moderate, and there was some congestion of the region of the verumontanum Treatment consisted of (1) moderate doses of thyroid (0 09 Gm daily), (2) biweekly intramuscular injections of testosterone propionate (25 mg) (3) instillations of a 1 1,000 solution of silver nitrate into the posterior urethra via Bang's syringe, and (4) prostatic massages He also was advised to reduce

After five weeks of treatment the patient volunteered the information that attempts at coitus often brought on a peculiar pressure in the substernal region He further added that the domestic situation, in view of his impotentia, had become intolerable His wife could not understand his sexual inability and plagued him with the accusation that he 'went out with other women" He dreaded coming home because of the scenes that often ensued He further added that difficulties and discords had arisen at the school, and that between the hard, tense work and the irritations at home he felt he "could not go on" He drank increasing quantities of coffee to counteract the lethargy which resulted from his insomnia, and smoked ten to fourteen cigars a day, contending that that was "the only real pleasure left" Because of the precordial pain, he was referred back to his physician for a further check up The orthodiagram revealed slight left ventricular enlargement and moderate dilatation of the descending aorta of atherosclerotic type The electrocardiographic tracings suggested "the presence of myocardial changes such as due to coronary artery disease" (Fig 1)

The impotentia persisted and the patient, therefore, decided to consult a psychiatrist About three months later he joyfully reported that he had been helped greatly The discussion revealed that the patient had not loved his wife for over a decade She had become obese, unattractive, querulous, and given to acerbity Though other women attracted him, he had remained faithful because of "his work, his position at school, and his sense of honor" For the last year, however, an attractive, highly intellectual young woman had worked in his office A close friendship developed which, however, remained platonic Following the visits to the psychiatrist it became clear to the patient that all his troubles were due to his *affaires du coeur* Because he did not love his wife he became impotent, and when she insisted that he try to cohabit with her he developed chest pain The patient was quite happy with the unveiling of his submerged conflicts He recalled that the manifestations of the libido were normal when he was in the company of his amorata Yet, two weeks later, following a disturbance at school, and a heavy meal at home which culminated in a horrendous quarrel with his wife, he developed an excruciating pain in his chest which radiated to his left shoulder and down the left arm He died within an hour, obviously of acute coronary occlusion

Discussion It is probably true that the patient suffered from profound psychic conflicts, but it is also true that there were other significant organic changes in him which should have received more attention These undoubtedly were aggravated by emotional and physical strains To have treated only one aspect, the psychic, was incomplete therapy

Case 2—A man of 40 married an attractive girl one half his age Three months after marriage he noticed short-lived, ineffectual erections on attempts at coitus About a month later he began to have attacks of tachycardia, precordial oppression, and a sensation of a lump in his throat These symptoms usually occurred at night and were relieved by hypodermics of morphine Physicians told him that he suffered from attacks of angina pectoris, and advised him to stop work and go South The patient was seen by me one year after the onset of his complaints I found a nervous, shaky individual, wearing a heavy sweater and thick underwear in addition to the usual amount of clothing because he was "subject to cold" (the weather was relatively mild) During the interview, from which he omitted any mention of his impotency, I noted that he repeatedly gazed rather beseechingly at his wife She kept showering him with attentions and helped his getting about and disrobing, because, she declared, "He must not strain his heart" The patient had neglected his business, but continued to drink large quantities of coffee and to smoke thirty to fifty cigarettes daily in addition to several cigars and a pipe The examination revealed a man of medium height, flabby build, and protuberant abdomen The skin was dry and the hands felt cold and clammy He had prominent eyes, carious discolored teeth, and a tongue that was tremulous and covered with a gray, brownish fuzz There was a fine tremor in both hands, the muscle movements were jerky, and the knee-jerk reflexes were explosive The blood pressure was 90/60, the pulse was 100, and the heart sounds were forceful The abdomen was negative He resisted examination of his genitalia, stating that they were "very sensitive and hurt him" The rectal sphincter was tight and examination of the prostate was interrupted because the patient cried out with pain However, it was possible to determine that the organ was not enlarged and that it was somewhat boggy When the examination was completed the patient, rather wistfully, asked, "Tell me, Doc, how long?" He resisted probing into his marital relationship

and it was only after a number of office visits that he confessed he was impotent. The difference in age between himself and his wife, her beauty as compared with his unattractive appearance, and the possibility of sexual inadequacy had worried him even before marriage. When the first premature ejaculation occurred the mental hazard caused by that mishap so affected him that satisfactory coitus could not be accomplished thereafter. He then started to worry that his wife might leave him or that she might become untrue to him. Every homecoming was accompanied by an uncontrollable dread of some impending disaster. It was then that the attacks of palpitation and precordial distress started. At first he accepted the diagnosis of angina pectoris with some relief and relished the attention his wife paid him. Later, however, it accentuated the old-age inferiority complex. Certain now that he was "sexually through," he often thought of committing suicide. Further discussion with the patient revealed an ignorance of the anatomy and physiology of sexual relationship. The orthodiagram revealed a left ventricular hypertrophy.

The electrocardiogram showed left-axis deviation and a conduction time measuring 0.24 to 0.25 second (Fig. 2). The pulse rate was 68; one hour later it was 128. The basal metabolic rate was +8 per cent. The urine was negative.

It was pointed out to the patient that the age difference as between himself and his wife was not unusual in many happy marriages, and that being old depends not altogether on one's age, but on one's general condition. He was told that his genitalia, which he considered "delicate, small, and inferior," were normal, and that his "heart trouble" was not organic. Most of his symptoms were the result of a combination of inferiority and fear complexes. He was urged to cut down on tobacco and coffee.

When last seen the patient had had fewer attacks of palpitation and sexually he had swung in the opposite direction to his previous inadequacy, even boasting of his prowess.

Discussion: The summation of phobias, fixations, and feelings of inferiority in a sexually unenlightened individual led to cardiovascular derangements resulting in a profound psychosomatic dyscrasia. The declaration that he suffered from angina pectoris augmented the symptoms. Clarification of the motives and mechanisms underlying the trouble, instruction in sex anatomy and physiology, and general encouragement led to a marked improvement.

911 Park Avenue
New York City

WAR OFFICE OF PSYCHIATRIC SOCIAL WORK CONTINUED

Psychiatric social work has proved such a valuable resource to Selective Service and to the mental health services of the armed forces that a projected discontinuance of the War Office of Psychiatric Social Work has been averted by securing additional financing and the work assured for another year, it was learned on February 4.

The War Service Office, stimulated by an officially recognized need for its particular function, will continue in 1945 as a joint project of the National Committee for Mental Hygiene and the American Association of Psychiatric Social Workers. Announcement of continuance was made by Dr. George S. Stevenson, Medical Director of the Committee, and Miss Madeline U. Moore, President of the Association.

It also became known on February 5 that Mrs. Elizabeth H. Ross, Secretary of the War Service Office of the Association, has been appointed a Consultant to the Surgeon General of the Army, bringing a more direct relationship between psychiatric social workers and the Army, through the Division of consultants in neuropsychiatry. Both neuropsychiatry and pyschiatric social work have been utilized as important resources in the Army as they have also been in Selective Service. The Army has established services in conjunction with military psychiatry in station, general, and neuropsychiatric hospitals, in consultation services in rehabilitation centers, in convalescent and reconditioning facilities, and in redistribution centers. The Army is using its own enlisted personnel, both men and Wacs, in conjunction with psychiatry.

As secretary of the War Service Office Mrs. Ross continues her work, not only with military authorities, but with civilian agencies concerned with the problems of war, such as Selective Service, the Veterans Administration, and the American Red Cross.

The War Service Office had been threatened with dissolution for lack of funds at the end of 1944. Widespread and voluntary support by psychiatrists, as well as by civic and socially minded members of the lay public, made possible continuation of the work.

Assured that the military authorities in this war needed the assistance of trained psychiatric social workers to make effective the work of Army psychiatrists by preparing case histories and helping in the treatment of psychiatric casualties, the War Service Office has concentrated on helping find within Army ranks those who had such training and ability in civilian life. Simultaneously, the office has been concerned with promoting the standing of such workers in the armed services, and with recruiting the greatest possible number of new, qualified workers into the field of psychiatric social work to meet future needs.

A REPORT OF 93 CASES OF MENINGOCOCCUS INFECTION ADMITTED TO STATION HOSPITAL, CAMP BUTNER, NORTH CAROLINA (FROM NOVEMBER, 1942, TO SEPTEMBER 1, 1943)

R. W. Houseal, Maj., (MC), AUS, and M. J. Gerbasi,* Capt., (MC), AUS

Ninety-three cases of meningococcic infection have been admitted to Station Hospital, Camp Butner, North Carolina, during the last ten months. In civilian life since late 1942 as in 1929, a great rise of the incidence of this disease has also been noted.[1] The specific effects of therapeutic agents developed within the last decade have provided a thrilling experience to the medical staff. The cures in some cases seemed miraculous. We have come a long way since Viesseux gave the first classic description of this disease (1805, Geneva).[2] Soldiers admitted desperately ill, delirious, and frequently in shock have, after twenty-four hours become rational and comfortable.

Group susceptibility to meningococcic meningitis is low. The number of cases as compared to the total number of troops or to the total number of admissions to the hospital is very small. The influence of meningitis on the total noneffective rate in troops is negligible. It is the influence of meningitis on the morale of troops that is important from a military point of view. The number of cases of meningitis as compared to the number with measles, for example, is very small; yet soldiers pay no attention to the latter disease. Medical officers whose experience goes back to the last war can, however, recall the effect on the morale of both officers and men caused by the appearance of a few cases of meningitis because of its severity, suddenness of attack, coma, and high mortality rate. Fear and apprehension are engendered as soon as the disease appears. During World War I there were 4,831 meningococcic meningitis admissions to U. S. Army Hospitals with 1,836 deaths: a mortality of 38 per cent.[3] At the present time, with a mortality rate of less than 5 per cent, the disease should cease to depress the morale of troops.

Though spread of this disease is effected by poor ventilation and overcrowding, various writers in Japan, Egypt, England, and the United States have remarked on the relative rarity of family infection. Captain Darlington made an epidemiologic study of our first 16 cases with the following observations: Cases 1, 2, and 16, occurring in November and December, 1942, were in men who had just arrived at camp from other stations and were infected before arrival here. The strength of organizations on the post increased by about 50 per cent during those months by arrival of newly inducted troops. Perhaps many carriers also arrived with these cases. Finally about the middle of December the meningococcus carrier rate reached a point, not necessarily very high, which began to produce cases of disease. No contact among the first 16 cases could be demonstrated (Chart 1).

A great deal has been written on the way in which this infection spreads in the body. It would seem plausible that the meningococcus is harbored in the nasopharynx and when the normal body resistance is broken the blood stream is entered and the meninges secondarily invaded, rather than the germs reaching the meninges by way of the cribiform plate directly. Our early patients frequently showed positive blood cultures with a negative spinal fluid, eight hours later a lumbar tap would frequently reveal a cloudy spinal fluid, positive on culture. The late cases showed a pronounced meningeal reaction but the blood culture was not so constantly positive. These cases will bear out this point.

Case 86 (*D. R. B.*).—The patient's blood culture was positive, the spinal fluid contained no cells, and the culture was negative. Eight hours later the spinal fluid culture was positive for type I meningococcus, 760 cells.

Case 68 (*S. W.*).—Twelve hours after onset of symptoms, the blood culture was positive, the spinal fluid contained eight cells, the culture was positive. Sixty hours after onset of symptoms with no treatment it contained 2,440 cells, and gram-negative diplococci were present.

Case 72 (*J. M.*).—The blood culture was positive, the spinal fluid contained no cells, and the culture was negative. Twenty-four hours later the spinal fluid showed 4,690 cells, and gram-negative diplococci were seen.

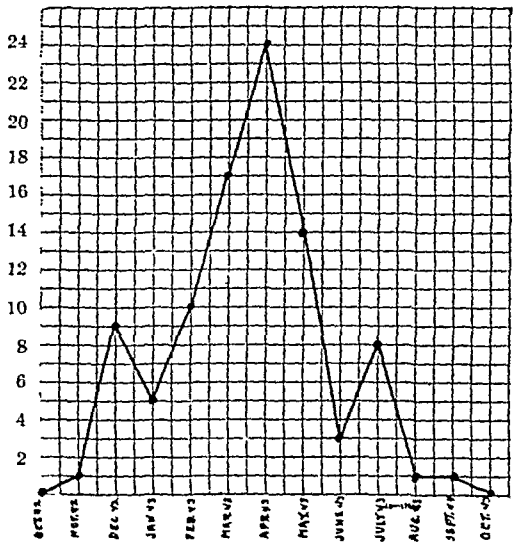
Case 76 (*K. F.*).—The patient's blood culture was positive, the spinal fluid contained five cells, all lymphocytes, the culture was positive for meningococcus, type I. Eight hours later the spinal fluid contained 3,610 cells, the culture was again positive, and [illegible] were seen.

[illegible] hours after onset of [illegible] was positive, and petechiae and purpura were present, the spinal fluid contained three cells, no organisms were seen, and the culture was positive for meningococcus, type I.

Our series of cases has been divided into four groups—mild, moderate, severe, and fulminating—on the basis of severity of symptoms. The height and duration of the fever, the state of

* Of Rochester, New York.

Meningococcus Infection Incidence



consciousness, and the condition of the circulation were the principal criteria of the severity of the disease.

The patients with mild cases were mentally alert, the ones with moderate cases were apathetic and stuporous, and those with severe cases were comatose and delirious. The patients with the fulminating type of case showed signs of peripheral circulatory collapse with low blood pressure and gray cyanosis. We feel that all of the cases, especially when the disease is occurring in epidemic form, are potentially severe; a mild case, if untreated, can rapidly become a severe one. Of the cases, 10.7 per cent were mild, 10.7 per cent of the cases were moderate, 63.4 per cent severe, and 15.0 per cent fulminating.

The onset in all the severe and fulminating cases was very sudden. Case 10 (W. C.) drilled with his company in the morning and was found unconscious on the floor of his barrack's latrine at 3 P.M. Case No. 27 (J. M. S.) felt well in the morning and took a three-hour written examination, making an excellent grade. He was admitted to the emergency room at 10 P.M. in stupor. A lumbar puncture revealed a cloudy spinal fluid. On the other hand, the onset in the mild cases was much more gradual. For example: Case 57 (F. H.) had a cold for two weeks and developed a sore throat and fever with an exacerbation of an old sinusitis. On admission his temperature was 99 F., there was nasopharyngitis with bloody nasal discharge, mild headache without rigidity of neck, white blood cells, 11,000; the patient was mentally alert. He rested well all night and a lumbar puncture was not done until eighteen hours after admission. It showed a cloudy fluid, positive on culture.

Most of the milder cases occurred toward the end of the epidemic. Only one case of so-called chronic meningococcus infection without invasion of the meninges was seen. This soldier had five attacks of fever and headache lasting for several hours with intervals of three or four days between. Repeated blood cultures were necessary before a positive result was obtained.

The symptoms and signs most frequently encountered were headache, fever, vomiting, sore throat, stupor, stiff neck, Kernig's sign, and skin manifestations: rose spots, petechiae, and purpura. All patients had herpes labialis, which appeared after the third day. In some instances the whole side of the jaw or face was involved. Table 2 shows the frequency of occurrence of each of these symptoms in 93 cases.

Of these symptoms and signs the most striking on admission were the headache, nausea and vomiting, stupor, rose spots and petechiae, and stiff neck. Headache, vomiting, and fever, while present in a large percentage of cases, are not distinctive, being frequently encountered at the onset of many infections.

Temperature varied from 97.6 F. to 105.6 F., the average being 103.3. The pulse varied from 64 to 126, the average being 97 beats per minute. The respirations varied from 16 to 36, the average being 18 a minute. The blood pressure varied from unobtainable to 150/100, the average being 96/70 and rising to normal levels as soon as the shock condition was relieved. For example, Case 45 (W. H. S.): after administering 1,000 cc. of 10 per cent glucose and 500 cc. of pooled human plasma a pressure of 80/68 rose to 120/80 and remained at that level. Headache is peculiar only in its severity at the onset of meningitis and most frequently is frontal and not occipital even in pronounced cases. Sore throat at the time of this epidemic was also present in large numbers of soldiers entering the hospital with nasopharyngitis. Stiff neck and Kernig's sign were present in 83 per cent of the cases. These latter two signs are evidence of inflammation of the meninges and are not present in the meningococcemia which precedes the localization of the infection. They varied greatly in degree and frequently were equivocal. On the other hand, the mental state of the moderate and severe cases was distinctive. These were drowsy, wanted to be let alone, and answered questions only with continual prodding. Some were in coma, becoming conscious in belligerent, noisy delirium requiring restraint. The skin rashes were also characteristic and were shown by 72 per cent of our series. The first rash to appear is a macular type of eruption, usually over the trunk, resembling the rose spots of typhoid fever. This rash disappears quickly, usually

TABLE 1

Date	Headache	Temperature	White Blood Cells	Polymorphonuclears	Blood Culture	Spinal Fluid
April 28 1943	Severe frontal	103			Negative	
May 2 1943	Severe frontal	103	12 850	75%	Negative	
May 6 1943	Severe frontal rose spots present	101	13 150	83%	Negative	6 cells 4 lymphocytes Globulin 2 plus culture negative
May 7, 1943	Rose spots gone					
May 11 1943	Severe frontal	102	17 150	93%		
May 14 1943	None	98 6	8 800	79%		
May 15 1943	Severe frontal	102 6			Positive	No cells Culture negative
May 18 1943	Treatment begun (sulfadiazine by mouth)					
May 26 1943	No headaches	98 6	6 300	61%		No globulin

TABLE 2

Symptoms	Number Cases	Per Cent
Headache	93	100
Fever on admission	90	96 8
Stiff neck	77	8? 8
Kernig and Brudzinski signs	78	83 8
Vomiting	72	77 4
Sore throat	69	74 2
Rose spots	67	72 0
Chill	60	64 5
Stupor	52	56 0
Petechiae	47	50 5
Conjunctivitis	35	37 6
Purpura	14	15 0

within less than twenty-four hours The most typical skin manifestation was the petechiae These are punctate hemorrhages into the skin varying in size from pinhead to 1 cm in diameter, appearing on conjunctivae, trunk forearms, ankles, and legs They come out in crops with startling rapidity, the patients becoming spotted within an hour Case 8 (R W M), seen in the admission office, had two or three light petechiae His chest, legs, and arms were covered thirty minutes later They fade within twenty-four hours, leaving a rusty fawn-colored stain, which persists for three or four days Some of our patients had larger purpuric spots, chiefly on areas subjected to trauma

The importance of early diagnosis in this infection is paramount In order that medical officers may select the meningitis suspects from among hundreds of cases of acute upper respiratory infection, a thorough knowledge of the symptoms and signs, keen observation, and constant vigilance are necessary The medical staff was instructed particularly in the characteristic skin manifestations and was given a memorandum beginning with this paragraph

"All cases of nasopharyngitis with high white-blood cell count or with petechiae, with or without nuchal rigidity, are to be considered as cases of meningitis until proved otherwise Immediate diagnosis and treatment are imperative Watch all cases of nasopharyngitis with fever, repeated emesis, and those stuporous and not mentally alert, especially in the cases of soldiers who have seen a month or less of service"[4]

Many cases were recognized by the field medical officers or by the hospital admitting officer and sent directly to the ward with a tentative diagnosis Some cases were admitted to other wards and selected by ward officers as cases of meningococcus infection In only one case was the patient in the hospital more than eighteen hours before diagnosis was made (Case 4 (R C A) discussed below as illustrating points in differential diagnosis)

On admission to the meningitis ward the following laboratory procedures were carried out complete blood count and blood culture, lumbar puncture with examination of the spinal fluid including cell count, smear for differential count and bacteria, and spinal fluid culture with inoculation of media as the fluid dropped from the spinal needle

The white-blood cell count made on admission varied from 6 800 to 44 500 cells, average 19,906 The percentage of polymorphonuclears was usually increased, with Schilling shift to the left All cases of nasopharyngitis with white blood counts of over 15,000 and polymorphonuclears above 80 per cent were considered suspects, and correctly so in many cases

The spinal fluid was cloudy on the first lumbar tap in 63 cases These were given intravenous sodium sulfadiazine without waiting for further examination of the fluid During the last ten months we have had 20 patients with virus meningitis, many of whom had an opalescent spinal fluid which proved on examination to be lymphocytic It was thought better, however, for these patients occasionally to receive sulfadiazine than to delay the treatment of cases of meningococcic meningitis while awaiting laboratory proof As soon as the laboratory ruled out meningococcus meningitis sulfadiazine treatment was immediately discontinued in these cases of virus meningitis, all of which recovered promptly The spinal fluid cell counts in our series of cases of meningococcus infection ranged from 0 to 74,200 cells, average 5,544 cells Differential counts on smears showed polymorphonuclear cells pre-

dominant, ranging from 62 to 100 per cent, average 84 per cent. In 64 cases, 73.5 per cent gram-negative diplococci were found in the smear of the spinal fluid. Spinal-fluid cultures were positive in 53 cases, or 61 per cent.

A single diagnostic spinal puncture was done. Often we wished that even this was not necessary, because in a goodly number of cases shock or bellicose delirium followed immediately after puncture. For this reason we did not attempt to follow the spinal-fluid sugar as a criterion of improvement, as was the established practice in the presulfa-drug days.[5,6] A second puncture at times was helpful for diagnostic value or to relieve the increased intracranial pressure with its untoward effect on the blood pressure, pulse, and respiration, as in Case 60 (J. F.)—74,200 cells in the spinal fluid, with depressed respiration.

Blood cultures were positive in 32, or 34 per cent of the cases. Some of these were reported positive in twenty-four hours, the rest showed a growth within five days or less. Blood cultures were thus of no help in making a diagnosis on the day of admission. All our cases were caused by meningococcus type I, except two cases, type IIa, one of meningitis and one of meningococcemia.

Our series showed 87 cases of meningitis and 6 cases of meningococcemia without meningitis. In this latter group laboratory proof was obtained in all except one case. Case 52 (R. S.) had a sudden onset with fever, vomiting, mental apathy, petechiae, and a 23,400 white-blood-cell count, 87 per cent polymorphonuclears, 47 of these being stab cells, which we considered as sufficient evidence for the diagnosis of meningococcemia if occurring in a patient during the course of an epidemic. We include this patient in our series.

In the differential diagnosis meningismus occurring occasionally in such acute infections as pneumonia, typhus fever, typhoid fever, and rheumatic fever may be confused with meningitis. The findings in the spinal fluid differentiate meningococcus meningitis from that due to the tubercle bacillus.

Case 4 (R. C. A.).—This case illustrates difficulties in the differential diagnosis. The onset occurred suddenly on the evening of December 14, one day before admission with severe occipital headache, vomiting, diarrhea, and fever. On admission his temperature was 101 F., pulse 100, respiration 20, neck supple, Kernig negative, pharynx injected, many rose spots on abdomen, white-blood-cell count 10,000 on admission, 7,600 two days later, spinal fluid clear, 9 cells, globulin negative, no organisms seen in the smear, and blood culture negative. Twelve hours after admission the rose spots faded and he developed purpuric spots and petechiae over the face, chest, abdomen, back, and extremities. The temperature rose to 106 F. and the patient was wildly delirious. On December 16 he vomited coffee-ground material which gave a positive test for occult blood. The agglutination test for typhus fever was negative. With these data we felt that the disease was probably typhus fever and did not give sulfadiazine. The day after admission he was given a transfusion of 400 cc. of citrated blood. Improvement occurred and continued for two days. Then his neck became rigid and a second lumbar puncture revealed a cloudy spinal fluid with type I meningococci. He was given intravenous sodium sulfadiazine. The next day he was in coma. A 100-cc. dose of antimeningococci serum was given intravenously and intravenous sodium sulfadiazine was continued. The patient died on his fifth hospital day.

While patients were under the direct management of the Chief of the Communicable Disease Section immediate treatment was essential and all officers of the medical staff were made responsible. The following memoranda was given to the staff:[9]

"1. Call the laboratory corpsman, be it day or night, so that the media can be implanted with suspected spinal fluid directly. Get a blood culture. If the spinal fluid is cloudy start intravenous treatment outlined below without removing this needle from the vein.

2. Five Gm. of sodium sulfadiazine in 100 cc. of distilled water slowly by gravity from salvarsan burette. Repeat in eight hours if the patient does not tolerate oral medication or fluids.

3. One thousand cc. of 5 or 10 per cent glucose in saline intravenously immediately after the sulfadiazine without removing the needle.

4. Pooled human plasma if patient is in shock—comatose, with ashen-gray cyanosis and low blood pressure. Put patient in oxygen tent.

5. Catheterize patient if bladder is distended.

6. If patient is in active delirium administer 12 to 24 cc. paraldehyde in 1 ounce of oil (mineral or olive) by rectum. Always make sure that a special corpsman has been assigned to each new meningitis patient."[7]

An effort was made to avoid focusing the attention on the specific treatment to the neglect of general measures to conserve the strength of the patient. Many details were worked out during the experience of the first month. Various sedatives were tried in the restless and delirious patients. Vomiting in these was almost continuous and medication by mouth was impossible. Intravenous barbital preparations were given in some cases. Paraldehyde seemed to give the best results and has been the only sedative used during the last nine months. An occasional hypodermic dose of codeine was administered for headache and joint pain. During the first month of the experience fluids and sulfadiazine were given into the stomach through a Levine

nasal tube This method, however was discarded in favor of the intravenous route when it was found that the fluid and drug in some patients remained for hours in the stomach and in others they were vomited A Wangensteen stomach suction was used in some cases of persistent vomiting particularly in cases with hematemesis Cases 3, 5, 8, and 39 (R A, N L, R N, and R M)

Fluid intake and urinary output were charted The minimum output considered satisfactory was 1,500 cc One thousand cc of glucose in saline was given to all patients receiving intravenous sodium sulfadiazine on admission To those unable to take fluid by mouth because of coma or delirium, or repeated emesis, two or three thousand cc of 5 or 10 per cent glucose in distilled water were given during the first twenty-four hours in addition to this first infusion of saline One patient had edema (Case 28—T R K.)

Sulfadiazine alone or sulfadiazine and meningococcus antitoxin were the specific therapeutic agents used We followed the dictum "strike hard at the start, subdue the infection quickly" Sodium sulfadiazine was given to all patients in sufficient dosage to produce and maintain a blood level of 7 5 to 10 mg per cent during the first forty-eight hours unless some toxic effect developed, requiring discontinuance of the drug

In the last 70 cases we have treated the results have been as good if not better with a sulfadiazine blood level of 6 to 8 mg per cent Thus last is a most welcomed conclusion, as in this way there is less risk of drug reactions

In all the severe cases 5 Gm of sodium sulfadiazine was given intravenously immediately on the finding of a cloudy spinal fluid This was repeated at eight- to twelve-hour intervals in 3- to 5-Gm doses The intravenous method was discontinued as soon as the patient could retain sulfadiazine and sodium bicarbonate by mouth, which was usually after the first twenty four hours

The average amount of intravenous drug, i e, sodium sulfadiazine was 9 2 Gm, and orally (sulfadiazine, sulfathiazole, and sulfanilamide) 67 7 Gm Treatment was administered on the average for 13 5 days, thus allowing for oral medication for seven or eight days after the patient was afebrile

We learned by daily blood sulfadiazine estimations that the sulfadiazine dosage by mouth necessary to produce a satisfactory blood level was 1 to 2 Gm every four hours This varied somewhat with the individual With all the sulfa compounds excretion is chiefly by way of the kidneys The time of maximum urinary excretion varies with the drug given, the dosage, and the route of administration In comparison with sulfanilamide the rate of excretion of sulfadiazine by the kidneys is relatively slow High blood levels are reached and maintained more readily than with sulfanilamide Our patients were soldiers, mostly young men with normal renal function The only renal impairment to be considered was that resulting from the disease or from the sulfadiazine itself In cases of impaired renal function Alyea[8] standardized the sulfanilamide dosage on the basis of phenolsulphonphthalein excretion By this method he was able to maintain constant blood levels In our cases comparison of the blood sulfadiazine levels with nonprotein nitrogen levels shows that the sulfadiazine levels would rise rapidly in the blood when the nonprotein nitrogen level was higher than normal Likewise, in the presence of impaired renal function, as indicated by nitrogen retention, on discontinuing the drug the blood sulfadiazine would decrease much more slowly than in patients having a normal nonprotein nitrogen At the first indication of a rising blood nonprotein nitrogen the sulfadiazine dosage was therefore reduced It was stopped entirely when the blood nonprotein nitrogen reached 45 mg per cent

Both antimeningococcus serum and meningococcus antitoxin were used Antimeningococcus serum was administered intravenously to only 7 patients No conclusions can be drawn because the number of cases thereby treated is small, however, no dramatic improvement was seen With antitoxin, however, the beneficial effects were very dramatic and obvious in four to six hours It was repeatedly shown to us that it was good insurance to administer the antitoxin intravenously in doses of 30,000 to 60,000 units Recovery is assured even if there should be a pronounced intolerance to all the sulfa drugs[9]

In 35 severe cases antitoxin was given Shock was relieved before patients were tested for serum sensitivity, since a false negative test may be obtained if the capillaries are collapsed Thirty to eighty thousand units of meningococcus antitoxin in 500 cc of saline were given slowly intravenously in one dose Five patients received a second dose of antitoxin eight to twenty four hours later In only one case, 13, was it necessary to discontinue administration of antitoxin because of the reaction Another case, 22, had a severe reaction immediately after injection Both of them recovered In only 12 of the cases receiving antitoxin was any serum sickness seen They had urticaria, easily relieved by the usual measures A few ran a slight fever or had swelling of the joints, usually symmetric Cases 27 and 84 showed elevated white blood counts, 33,200 and 22,300, over a period of days, associated with a more severe form of serum sickness One

of these men showed a predominance of the lymphocytes and the other of granulocytes.

Many therapeutic measures were utilized in the treatment of the fulminating cases to relieve the peripheral circulatory collapse. Immediately after the intravenous sodium sulfadiazine these patients were given 1,000 cc. of 5 per cent glucose in saline. If improvement did not occur as evidenced by relief of cyanosis and rise of blood pressure to normal, they were then given 500 cc. of pooled human plasma and put in an oxygen tent. Some were given adrenal cortical extract. While these measures served to relieve shock in most cases, it is difficult to evaluate the separate effect of any one of them.

The most frequent toxic effects of the sulfonamides noted in our series were related to the kidneys. Each patient had a daily urinalysis. A venipuncture was done each morning and a sulfonamide and nonprotein nitrogen estimation was made on this specimen of blood withdrawn. Over 4,000 specimens of blood were examined in this way and the results were tabulated. Hematuria, kidney colic, suppression of urine, and nitrogen retention all occurred. It is impossible to decide dogmatically how much of this kidney damage was due to the sulfonamides and how much was due to the disease itself. The toxin of the meningococcus injures the cells of the blood capillaries, and the hemorrhagic tendency of the disease, as seen in the petechiae and purpura, might also be a cause of the hematuria. Case 36 (Seib) had gross hematuria before sulfadiazine was given, as did many other cases. In such cases sulfanilamide rather than sulfadiazine was given orally, since we have repeatedly noted that hematuria developing while a patient is taking sulfadiazine cleared when changed to sulfanilamide but not if sulfadiazine was continued, despite an adequate fluid and alkali intake. Then, too, the circulatory collapse in the fulminating cases was conducive to suppression of urine and azotemia.

Our observations tend to confirm the opinion of others that there are two types of renal lesions resulting from sulfadiazine; namely, the mechanical effects of sulfadiazine crystals causing obstruction and hematuria, and the effects on the kidneys similar to that of mercury poisoning resulting in azotemia and suppression of urine.[10]

The hematuria encountered can be regarded as one caused by the infection and aggravated by the sulfadiazine. While it is true that by giving alkali and a high fluid intake with sulfadiazine, the development of hematuria during therapy could be avoided in most cases, with an admission of hematuria it would have been foolhardy to push sulfadiazine, and sulfanilamide was better.

Some of the cases having hematuria did not have nitrogen retention. On the other hand, some of the cases showing a high blood nonprotein nitrogen did not have hematuria. Forty of our patients had hematuria. Of these, 18 had a blood nonprotein nitrogen above 35 mg. per cent and 22 a normal blood nonprotein nitrogen. Twenty-nine patients had a blood nonprotein nitrogen above 35 mg. per cent. Of these cases of increased blood nitrogen 17 had hematuria and 12 did not. We consider an elevation of the blood nonprotein nitrogen as useful a criterion in the administration of sulfadiazine as the presence of red blood cells in the urine. Sulfanilamide is tolerated when hematuria is present. None of the sulfa drugs are tolerated when the nonprotein nitrogen is elevated.

In those patients with a blood nonprotein nitrogen of over 45 mg. per cent the sulfadiazine was stopped; twenty-four hours later sulfanilamide was usually begun. A few red blood cells on a microscopic examination of the urine was not considered a positive indication for discontinuing sulfadiazine. When there was gross hematuria, sulfadiazine was always stopped. No permanent renal damage resulted, as proved by urea clearance tests carried out on eight patients two weeks after having had an elevated nonprotein nitrogen or hematuria; in all cases the standard and maximum clearances were 100 per cent or better.

Other toxic effects of the sulfa drugs were: renal colic (sulfadiazine) in three instances; fever (sulfadiazine, sulfanilamide, sulfathiazole) in eight instances; cyanosis, drop in blood pressure, and air hunger (sulfanilamide) in five instances; gastritis (sulfanilamide) in one instance; anemia, moderate severity, drop of red blood cells to 3,000,000 (recovered with transfusions) in three instances; and rash over body (sulfanilamide) in two instances.

Numerous complications of meningitis are given in every textbook description of this disease. The eye complications, purulent conjunctivitis, corneal ulceration, and panophthalmitis, did not occur in our series. Pericarditis and myocarditis were not recognized. Internal hydrocephalus did not occur. The only complications were five cases of arthritis and one case of unilateral nerve deafness, Case 27 (J. M. S.), proved by audiometric testing.[11] The arthritis was usually monarticular. The joints involved were knee, shoulder, and metacarpophalangeal. There was considerable swelling, no redness, and marked pain on motion. The joint swelling appeared about the fifth day. None were tapped. They were immobilized for about a week. All showed no residual disability, and x-rays were negative on discharge from the hospital. Fever and length of time in the hospital were prolonged in all of these patients with arthritis.[5] In

one case, 30 (N L), a slough of a large purpuric area, 3 cm., over the external malleolus occurred It healed slowly but well

Three deaths occurred in a series of 93 cases, giving a mortality of 3 2 per cent These deaths occurred among the first 10 patients admitted, two of whom had the fulminating type During the last nine months 83 consecutive cases were treated without a death The average duration of hospitalization was 38 8 days in septicemia alone, 28 3 days, meningitis 38 8 days, meningitis and arthritis, 71 0 days All patients have been discharged to duty cured The average duration of fever and nuchal rigidity was 8 3 and 8 days, respectively

Summary and Conclusions

1 A report of 93 cases of meningococcus infection occurring among soldiers in Camp Butner, North Carolina, has been given

2 The concept that meningococcus infection is a generalized disease with meningococcemia preceding meningitis in this series of cases is emphasized The finding of a normal spinal fluid does not rule out the disease

3 The most helpful signs in early diagnosis are increased white blood cells, nausea and vomiting rose spots, petechiae, and mental apathy Medical officers in regimental dispensaries and the staff of the station hospital were able to make earlier diagnoses than is possible in civilian practice

4 Treatment using both sulfonamides and antitoxin was systematized during the first month of our experience and resulted in a zero mortality rate in the last 83 consecutive cases Antitoxin was used in conjunction with sulfadiazine in the severe cases It relieved the toxemia and served as a "sheet anchor" in those patients developing kidney effects requiring the discontinuance of sulfa-drug treatment

5 Constant vigilance is necessary to avoid kidney damage from sulfadiazine which may lead to azotemia and anuria In our cases a daily blood nonprotein nitrogen estimation was made

A nonprotein nitrogen of 45 mg per cent was found to be a satisfactory criterion for discontinuing sulfadiazine

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IS THE RACE IMPROVING?

The first million draftees of the last World War (1917–18) measured an average of 67 49 inches in height This was in the age group from 21 to 30 The average height of the 20 to 29 age groups of inductees of this war up to May, 1943 was 68 15 inches about two thirds of an inch higher In the same groups the proportion of men 70 inches tall was 27 5 per cent as against 22 4 per cent in the last war The proportion of men 6 feet tall is now 8 8 per cent as against 6 5 per cent in the last war The general average height as well as the number of tall men is greater

A study of school children in Toronto in 1939 showed the average 6 year-old was actually 2 inches taller than the same aged child in 1892 At 9 years this difference was 3 inches and at 14 years the boys were 3½ inches taller and the girls 2 inches

The stature of the average young person must be accepted as an indication of better physical condition The rejection rates of this war have been used to challenge the medical profession for a job poorly done The standards have been higher, and added causes for rejection have been used In this war 7 per cent were rejected because of illiteracy This one item alone would account for the higher rejection rate

It is of first consideration from a health standpoint, as well as military, that the physical condition of our young people be placed on a high level This is of direct interest to the medical profession, and we accept the challenge, but we cannot be held responsible for some of the factors causing the high rejection rates The medical profession cannot be blamed because 7 per cent of our young men and women cannot read or write

During the twenty five year period between the two wars morbidity and mortality rates have decreased and the life expectancy has increased from 49 to 61 years We feel pride in the manifest improvement of the race as shown statistically But the medical profession is pledged eternally to improvement —*J Michigan State M Soc, Feb, 1945*

sharp nuclear definition are most important, since nuclear changes are especially significant and pathognomonic in malignancy. A differential staining of acidophilic and basophilic cells is desirable, but of secondary importance.

In reaching a definite conclusion and in formulating the reports, a conservative point of view is advisable. A case should not be specified as definitely positive unless the evidence is overwhelming. If the slightest element of doubt exists, the case should be classified as suspicious. Findings should be corroborated as much as possible by curettage or biopsy before a major operation is performed.

Time does not permit entering into a description of the characteristic modifications of the normal structure of cells caused by cancer and of their diagnostic value, nor does it permit presenting detailed statistical data. In fact, it is a little too early to put this method on a statistical basis because of its present transitory status. We are still in the process of learning how to apply the method more successfully and how to use our criteria more securely. A more extensive application is necessary before its relative value can be more accurately appraised. However, it is safe to state that its position is already firmly established and its usefulness as a diagnostic method not only in cancer of the uterus, but also in other gynecologic conditions, has been conclusively demonstrated. In our hospital it has repeatedly been possible to diagnose uterine malignancy before its presence was revealed by other diagnostic methods or when it was not at all suspected, and in some instances, even after an inconclusive or negative curettage.

Summary

In summarizing, I wish to stress the following points:

First, the vaginal and endometrial smear method is based on sound morphologic criteria.

Second, until it is fully explored and mastered by a group of experts, it should be applied with caution and considered not as a substitute but as a supplement to the methods of biopsy and curettage.

Third, its most distinctive advantages are its simplicity and inexpensiveness, the feasibility of repeated examinations, and above all, its usefulness in permitting a recognition of early malignant uterine lesions.

I want to express here my appreciation to the Commonwealth Fund for having generously supported this work, and to Drs. Joseph C. Hinsey and Henricus J. Stander for having extended to us their unqualified support and the facilities of the Departments of Anatomy and Obstetrics and Gynecology of Cornell Medical College and of the New York Hospital.

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FREE EYE TESTS ARE STARTED IN DRESS INDUSTRY

Free eye examinations which eventually will be given to eighty thousand workers in New York's dress industry this year were started on January 3. The tests are part of an industry-wide health plan paid for by employers and jointly administered by them with the Dress Joint Board of the International Ladies' Garment Workers' Union, an American Federation of Labor affiliate.

The first group to take the test, a three-minute check to determine whether a more complete examination is necessary, were one hundred and twenty employees of the Apex Dress Company. Two telebinoculars, a stereopticon device for detecting eye weaknesses, were brought to the plant by optometrists under the direction of Dr. Leo Price, director of the Union Health Center.

During the year the eyes of employees in 2,215 shops in the metropolitan area will be examined at their places of work.

Those workers who are found to be suffering defects will be referred to eye specialists at the Union Health Center. There more complete examinations will be given. Glasses and necessary medical treatment will be provided for the workers without cost to them.

Financing of the health program, which was started January 3 in accordance with an agreement made in March, 1944, between employers and the union, will be borne by the employers. So far they have contributed approximately $3,000,000, or 3½ per cent of their total pay rolls.—*N.Y. Herald Tribune, Jan. 4, 1945*

ROENTGEN THERAPY OF ARTHRITIDES

IRA I. KAPLAN, M.D., B.Sc., New York City

(From the Radiation Therapy Department, Bellevue Hospital and the New York University College of Medicine)

OF ALL the ills of man that have baffled medical science for centuries and still fail to respond to any universal therapeutic treatment the most important is arthritis. For thousands of years victims of this crippling disease have filled water-cure places, which seemed to afford the only effective relief available to most of these sufferers. Medicaments of all sorts have been tried for this disease but as yet no drug or chemotherapeutic agent has proved more than temporarily effective.

The widespread incidence of arthritis, the serious social and economic distress associated with it, its chronicity, and the lack of a real remedy emphasize the importance of giving serious consideration to radiation therapy. Radiation effects its therapy by producing analgesia of the involved areas, either through direct action on their nerve endings in the area affected or by relieving the local inflammatory condition. This effect is probably due to a direct effect on lymphocytes and leukocytes, reducing inflammation and thus relieving pressure on the nerve sheaths. Irradiation also induces a better blood supply to the part through its effect on the vegetative nervous system.

Arthritis is not a uniform disease. During the period 1924–1944 we treated 144 cases of arthritis, exclusive of gonorrheal arthritis, and 76 cases of bursitis in the Radiation Therapy Department at Bellevue Hospital. Of the arthritis cases 72 were men and 72 women. Of the bursitis patients there were 32 men and 46 women.

For the purposes of this discussion we group our cases as arthritis proper—wherein the joints are involved per se—and bursitis—wherein the joint is secondarily affected because of involvement of the associated bursa. Arthritic conditions may be acute or chronic, infective or noninfective, and specific or nonspecific. They may be atrophic, rheumatoid infections, proliferating, arthritis deformans associated with the younger age group, or hypertrophic with osteoarthritic degeneration associated with senescence.

Until the advent of chemotherapy, irradiation was the treatment of choice in infective arthritides such as gonorrheal arthritis, and while chemotherapeusis has in a great measure displaced x-ray therapy for this purpose in resistant cases, irradiation is still of therapeutic value.

In Marie-Strumpell disease, which is an atrophic spondylarthritis probably due to rheumatoid arthritic conditions of the apophyseal joints, Oppenheimer[1] states that irradiation in the early stages results in cure, and in definite alleviation in the advanced stages.

As in most diseases, the earlier the diagnosis and the sooner the treatment is instituted the better the response, and the more favorable the results. Weinberg[2] treated a large number of arthritic conditions of all types and noted that the shorter the duration of the symptoms the sooner alleviation was effected by irradiation. Chronic cases required longer therapy for satisfactory results. Goldhamer,[3] too, found irradiation most effective in a large number of cases when therapy was applied early in the course of the disease.

Early in the employment of radiology for diagnostic purposes it was already noted that x-rays had an analgesic action, but it was not until 1906 that Pfahler and his colleagues[4] first made use in this country of this attribute of x-ray to treat diseases of the joints, namely the arthritides. Later, others reported good results in a larger number of cases. Langer[5] in 1931 reported on the treatment of 363 patients. Garland,[6] too, reported very good results, especially in the infectious types of arthritis. However, only in 1941 was a real effort made to investigate under adequate scientific clinical control the effect of x-ray therapy on arthritis in a large series of cases. Smyth *et al.*[7] at the University of Michigan undertook carefully to observe the effect of x-ray therapy under standard conditions in the treatment of rheumatoid arthritis and found the results promising. And later Smyth, Freyberg, and Lampe[8] reported that roentgen therapy is the best method of controlling the symptoms of rheumatoid arthritis of the spine. Rees and Murphy[9] state that spondylitis adolescens is a common disease of infectious origin in which the sedimentation rate is increased and the x-ray picture reveals early involvement of the sacroiliac joints with calcification of the ligaments and soft tissues closely related to the spine. The process begins early on the outer surface of the intervertebral disks. Vertebral changes take place from decalcification to fusion of the bodies. Early irradiation, they say, offers a hopeful and helpful means of relief in what is otherwise a marked disabling disease.

In the treatment of spondylarthritis ankylopoietica, Tenbergen *et al.*[10] report that x-ray

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FIG. 1. September 12, 1944—before; and January 26, 1945, after x-ray therapy. C. B., female, 45, pain in shoulder. Treatment: high-voltage x-ray, 900 r to anterior and posterior right shoulder.

therapy was found to be helpful in 16 of 27 cases treated and the activity of the disease decreased, evidenced by decrease of the sedimentation rate in 18 cases. Baker[11] reported on the treatment of 22 cases of rhizomelic spondylosis and observed that x-ray therapy in patients with early involvement showed most satisfactory results. Even in cases with marked deformity, surprisingly good improvement was noted. He states that before introduction of roentgen therapy satisfactory correction of Marie-Strumpell's arthritis required a prolonged hospitalization, while with roentgen therapy plus orthopedic care only a short period of time is required for relief.

Tillis[12] states "The sufferer of Marie-Strumpell disease or ankylosing spondylitis can look more optimistically on life since the advent of massive doses of x-ray therapy." Recently Freyberg[13] demonstrated by moving pictures definite clinical relief following x-ray therapy in cases of Marie-Strumpell's disease, although no definite anatomic alterations were noted in the roentgenographs after treatment of conditions existing before treatment. Yet the marked relief of symptoms and dysfunction was spectacular, and therefore Freyberg strongly advocates this method of therapeusis in all cases wherever possible, although like other experienced clinical radiation therapists he admits that the reason for favorable response in these cases is not yet completely solved.

It is not known whether the effect is merely analgesic through the associated nerve system response to x-ray effect, or due to the response of inflammatory reaction to x-ray as described by Desjardins[14] which chiefly relieves pain because of the indirect resolution of inflammatory deposits which have not yet become organized. As Tillis says, irradiation effects the cellular portion of the blood, and he believes that the antibodies and the ferments liberated by the destruction of leukocytes in and around the inflamed area are the effective agents. The rate of change following irradiation in the different phases of inflammation corresponds to the rate at which lymphocytes, polymorphonuclear leukocytes, and eosiniphils are affected by irradiation. These factors clarify the clinical results previously described and make it evident that roentgen therapy should be used as early as possible. Or it may be through a general effect suggested by Goldhamer. Yet the results are still not clearly understood, for, as Freyberg states, it is still to be determined whether the beneficial results following irradiation are entirely symptomatic or whether the disease is actually favorably affected.

Langer believes the effect is achieved by action on the vegetative nervous system. X-rays induce a better blood supply in the disease area, through their effect on the vegetative nervous system; consequently, a better tissue metabolism

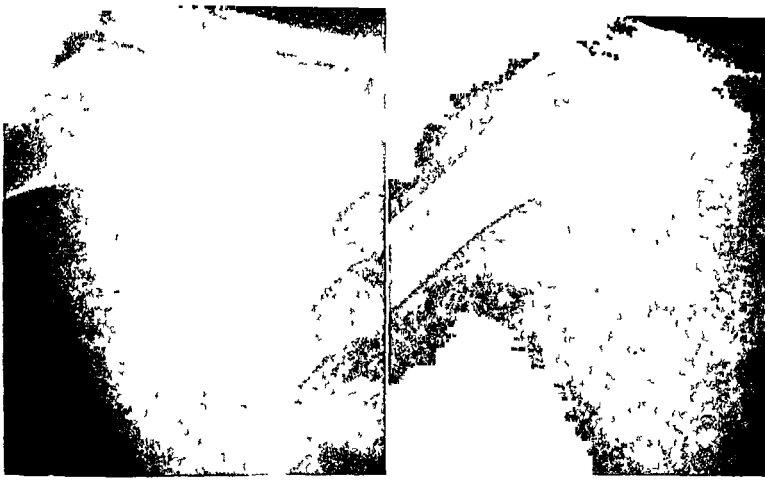


FIG 2 October 21, 1943—before, and February 29, 1944—after x ray therapy J R, male, 46, pain in right shoulder Treatment high-voltage x-ray Right anterior shoulder, 750 r, right lateral shoulder, 650 r, right superior shoulder, 450 r

is established Garland believes that the results, especially in the infectious group, such as the gonorrheal type, are due to the general reaction of inflammatory lesions to x ray But the reason for beneficial results on the chronic, degenerative type is harder to explain Suffice it to say that although we do not know the exact scientific reason for relief achieved, clinically, we have ample demonstrations of the effective subsidence of symptoms with subsequent relief to patients and, in the main, that is what counts For, although we cannot definitely explain the action of x-rays in arthritis, we believe that x-ray therapy is the best method of controlling symptoms and bringing relief to the patient, which is, after all, the aim of all therapeusis

Treatment of arthritic conditions is carried out in two ways, general and specific In many instances the general health of these patients is not good—persistent pain and distress has made them nervous and reduced their stamina, such conditions need relief Diet, too, requires careful supervision, especially regulation of carbohydrate ingestion Hydrotherapy, warm baths, and light massage of the muscles is helpful, Where definite infective sources are present, elimination of these is, of course, indicated, and chemotherapy may be used

Specific therapy consists of x-ray treatment This may either be administered with medium voltage x-ray therapy, for arthritis of small joints of the fingers or the toes, or high voltage x-rays, for the lesions in other parts of the body In the acute stages treatment is administered for two to three weeks and then once per week for five to six or more weeks, as the exigencies of the case may require In chronic cases one or two treatments per week are given for as many weeks as one deems necessary to control the symptoms Treatment is repeated after a latent period of four to eight weeks, if necessary When superficial therapy is used a 2 mm Al filter is employed The dosage given per treatment is the same whether superficial or high voltage is used, 100–200 r per area, two or more areas may be treated at one time, depending on the area involved and the extent of involvement and the general condition of the patient

Results of treatment are manifested in relief of pain and ability to use the limbs previously not functioning Swelling, when present, gradually subsides under treatment

Regarding other methods of treatment, we are in accord with Comroe[15] that gold therapy is inadequate and in many instances harmful. "Gold may be toxic and certainly is not the final answer to the treatment of rheumatoid arthritis." He further states, "Gold salts should not be given in any form of joint disease except rheumatoid arthritis. They are of no value in the treatment of degenerative joint disease, gout, fibrositis, specific infectious forms of arthritis, or rheumatoid fever. One should not continue using gold if the patient shows any untoward reaction, no matter how mild this may be. The unpredictable nature and time of the toxic reactions following gold therapy are the chief hazards in their use."

Radon ointment has been proposed as a remedy. The rationale for this is the supposed effect of mild radium action on the tissues. However, this ointment has little penetrating power, the energy from this form of radon being rapidly dissipated in the air. Practically all the energy is absorbed in the first few mm. of tissue on which it is placed. The assumption that it can influence the underlying joints or bones is entirely erroneous. However, to definitely prove whether such ointment was of any value clinically we treated a group of arthritic patients in the radiation therapy service at Bellevue Hospital in cooperation with the medical service in charge of arthritic diseases. Under careful supervision and scientific procedures this form of therapeusis in our hands proved absolutely ineffective and useless for arthritic conditions.

Bursitis may be either acute or chronic. It was first described by Codman.[16] It is a painful, disabling condition affecting the joints that may be caused by trauma, infection, or as a result of extraordinary use. In the acute stage marked disability occurs with extreme tenderness on pressure over the involved joint area and excruciating pain on joint motion. Where calcium deposits take place they are inside the bursal sac and this usually shows on the roentgen film. It occurs most frequently in men. Irradiation when applied early in the course of the disease rapidly relieves pain and gradually induces resolution of the calcific deposits in the bursa; chronic cases require longer courses of the therapy.

Young[17] states that he has noted resolution of calcified bursitis following but two treatments with x-ray therapy and this method of treatment is a safe, economical procedure. Brewer and Zink[18] state that in acute cases more rapid response is had with irradiation, and since chronic bursitis responds poorly to any other form of therapy, irradiation is a justifiable procedure. Harris[19] also reports that irradiation, although a simple procedure, gives such good results that all patients should have the benefit of treatment by this method. He treated 40 patients, with good results, especially in acute cases.

Klein and Klemes[20] state that roentgen therapy is the optimal method of treating peritendinitis calcarea of the shoulder. Baird[21] states that roentgen therapy is the treatment of choice in all acute and most subacute stages of calcified subacromial bursitis. Chapman[22] also reports striking relief of bursitis following but two radiation treatments. Solomon and Mortar[23] report that in their hands both diathermy and x-ray therapy give equally good results in periarthritis about the shoulder, but this is not the experience in the hands of others or our own experience. X-ray therapy alone appeared to us to be the method of choice in all cases.

Diagnosis is usually readily made because the symptoms are rather specific. Pain and disability are the chief complaints and tenderness over the involved bursa is present.

However, not in all cases will the roentgenogram show a definite shadow, but if symptoms are present which do not resolve in one or two days bursitis must be accepted as the diagnosis. Treatment is given whether or not calcium is visualized in the bursa on the roentgenograms.

In the treatment of bursitis by x-ray therapy, high voltage x-ray therapy with a 0.5 mm. Cu filter is used. Moderate voltage x-ray may be employed, using a 2–4 mm. Al filter, but in our opinion this form of therapy is not as efficient as that employing high voltage x-ray. Treatment is administered to the affected joint through several areas at each sitting. It is our custom to treat subdeltoid bursitis through three areas at each sitting: an anterior, a superior, and a lateral shoulder area, using either a 6 by 8 cm. or an 8 by 12 cm. field. One hundred to 150 r per field is given at each treatment. If the condition is acute two to three treatments per week are administered. In chronic or longstanding cases 1 or 2 treatments per week are given for six to eight weeks. In the acute cases the first one or two treatments may exacerbate the distress, so we always prescribe codeine for the first few nights to relieve pain. Gradually, as the x-ray takes effect, sedation is eliminated. Relief is usually achieved in four or five treatments. Calcium deposits may altogether disappear with a few treatments or require a longer course of treatment for complete resolution. In some cases complete relief and restoration of function occurs even before all the calcium is dissolved. The cases illustrated herewith demonstrate the employment of x-ray therapy in bursitis and the results achieved.

In conclusion, x-ray therapy is a readily available, practical, and efficient method of treatment for arthritis and bursitis. The results are lasting and usually occur shortly after the beginning of treatment. Exercising proper administration, we have never encountered any adverse effects from such treatments. Frequently in bursitis with calcium deposits these deposits disappear following irradiation

755 Park Avenue

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DIABETES—A NEGLECTED DISEASE—AND WHAT SHOULD BE DONE ABOUT IT

Diabetes is a neglected disease when compared with tuberculosis or infantile paralysis Diabetic patients equal in number those with tuberculosis and are four times as numerous as those crippled with infantile paralysis Yet, contrast the organizations devoted to the control and eradication of tuberculosis throughout the United States and the huge sums raised to combat the disease, as well as the $ [illegible] the study and care [illegible] with the one small national and the four recently created local organizations devoted to diabetes

The need for an aroused interest in diabetes is growing, because each year the number so afflicted is sure to increase. It is a disease of middle adult life, and the population of the country is steadily advancing to that decade, 45 to 55 years, in which the onset of diabetes is most frequent Diabetic [illegible] ing more cases [illegible] insulin, many coma. This each hospital itself for the encies The time required and the capital involved for equipment would be minimal, and the costs for available services of laboratory personnel at night and on Saturday afternoons, Sundays, and holidays would be insignificant compared with that incurred for maintaining operating rooms during those same periods. Indeed, a hospital that does not exercise such foresight in the not distant future may be held derelict to its local needs

The discovery of alloxan diabetes has opened up opportunities for research never before even dreamed of, and these new pathways of investigation should be exploited. Already, in less than a year and a half following the report of Shaw Dunn's original work, [illegible] have been [illegible] of diabetic patients, to protect them in their emergencies and complications and to foster research, funds are needed, and the most readily available source is from the patients themselves They constitute an intelligent group and are able and ready to contribute if asked They are not content with the present methods of treatment. They know that research gave them insulin, and they want to provide for more research to improve present methods of treatment. They are painfully aware of the short- [illegible] diabetic education or because of inferior medical treatment. They [illegible] and they wish to [illegible] relatives wish to [illegible] tients and their relatives in any community should be asked to furnish the funds for facilities in their local hospital to protect them in emergencies and to promote research in hospitals that are properly qualified. They rightly look on such gifts as personal insurance.

Physicians in the United States should raise $10,000,000 in 1945 for the creation of diabetic funds and for the betterment of hospital facilities. If this is not done, they, too, can be held derelict, because patients and their relatives are more than ready to give the money to improve the care of the diabetic patient —*New England J. M., Feb. 22, 1945*

CLINICOPATHOLOGIC DIAGNOSTIC CONFERENCES

Fourth Medical Division of Bellevue Hospital

Date: March 1, 1945
Conducted by: Dr. Emanuel Appelbaum

Dr. Marilyn T. Schittone: H. S., a 59-year-old Norwegian seaman, was admitted to Bellevue Hospital on October 16, 1944, as a transfer from another hospital, for investigation of gross hematuria which was first noted on November 16, 1943 while the patient was hospitalized there. An abstract of the patient's record there revealed that he had been admitted for a fracture of the neck of the right femur sustained in a fall on October 16, 1943. There was a past history of gonorrhea on four occasions and soft and hard chancres. He was being treated in the outpatient department of the other hospital for tabes. In addition to the findings of a fractured femoral neck, the positive physical findings were: heart enlarged to the left with a systolic murmur at the apex, and blood pressure 200/100. The fracture was pinned. A routine blood count revealed hemoglobin, 52 per cent. The anemia was treated with transfusions and vitamin B complex with no improvement resulting. On the thirty-first hospital day he passed grossly bloody urine, and after cystoscopy the genitourinary consultant felt that this bleeding came from varicosities of the prostate. Treatment with sulfathiazole, retention catheter, and bladder irrigation was given. The urine continued to be intermittently bloody. On the sixty-fifth hospital day he complained of epigastric pain relieved by food and alkalis. Gastric analysis showed no free hydrochloric acid and low total acidity; there was occult blood in the stools. A gastrointestinal series on the seventy-fifth day was negative. The patient became relatively symptom free on alkaline sedative powders and a meat-free diet, and was discharged, improved, on January 3, 1944. Antiluetic and orthopedic treatment was continued in the outpatient department. He was readmitted to the other hospital on September 27, 1944, because of abdominal pain, lumbar pain, and hematuria. Examination at this time revealed the patient to be extremely pale and weak with blood pressure of 162/82, 4 plus blood Kline test, and marked anemia. With that status, the patient was transferred to us for further work-up. Examination on admission revealed an acutely and chronically ill man with lemon-yellow pallor. His temperature was 100.4 F.; pulse, 104; respiration, 24; and blood pressure, 170/76. Marked deformity of the nose was attributed to trauma (possibly syphilis). His eyes revealed blepharoptosis of the left lid and Argyll Robertson pupils. The heart was enlarged to the left and right; it had a regular sinus rhythm. There was a systolic apical blow and an aortic diastolic murmur transmitted toward the apex. His lungs were clear. The left liver lobe was two finger-breadths below the costal margin. The right hip was deformed. Knee and ankle jerks were absent, but biceps and triceps jerks were present. The Babinski sign was negative. His vibration and position sense was intact.

Laboratory Examination and Course.—White blood cells, 9,850; hemoglobin, 7.5 Gm.; red blood cells, 2.8 million; urine, specific gravity of 1.008; albumin, 4 plus; 7–10 red blood cells per high-power field, loaded with white blood cells and clumps. Both the blood Wassermann and Kahn tests were negative on three occasions. The nonprotein nitrogen varied between 118 and 129 mg. per cent; urea, between 69 and 90; creatinine, 2.1 to 3.3; cholesterol and esters, 133/50 to 90/35. The albumin-globulin ratio was 4.85–4.05 to 4.9–2.3. The white blood count rose from 9,850 to 17,400 with normal differential. The red blood count and hemoglobin continued at the same level. Spinal fluid showed two cells; the Pandy test was negative; total protein was 43; the colloidal gold curve was 1,122,210,000. The Wassermann was anticomplimentary on one occasion and ± on another. Stools were 4 plus for blood. Gastric analysis showed no free hydrochloric acid and only two degrees of total acidity. X-rays of the chest and bones were not contributory. X-rays of the stomach and duodenum were negative. An electrocardiogram showed a diphasic T-wave in leads 1 and 4. The patient remained afebrile throughout the course of his disease. The urine showed 4 plus albumin and increasing amounts of blood and pus until a standing specimen would settle into two layers of two-thirds pus and one-third blood. Attempts to culture the urine resulted in overgrowths of Bacillus proteus and of gram-positive diplococci which were not identified. Concentration and dilution tests showed a fixed specific gravity. There was a phenolsulfonphthalein excretion of 45 per cent in two hours. On the twelfth hospital day the patient complained of pain in the abdomen. There was slight right costovertebral angle tenderness and some observers palpated a mass in the right flank which was felt to be the kidney. Several days later the costovertebral angle tenderness was no longer present and the mass was no longer felt. Intravenous pyelogram failed to reveal the presence of the contrast me-

dium in either kidney, but the patient's desperate condition made it impossible to do retrograde pyelography He was given supportive transfusions, vitamins, iron, and liver extract On the thirty-eighth hospital day he began to complain of generalized discomfort, hiccoughed, and had muscle twitches The abdomen was held tensely throughout His blood pressure was 160/76 There was no urea frost and no characteristic breath odor The patient became comatose and died in uremia on the fortieth hospital day

DR EMANUEL APPELBAUM This case will probably provoke a great deal of discussion, since, among other things, it brings up the question of the relationship of hypertension to renal disease During the past few years interest in this subject has been aroused, mainly as a result of the experimental work of Goldblatt As you undoubtedly know, this investigator has produced hypertension in dogs by constriction of one or both main renal arteries This formed the basis of the renal or ischemic theory of essential hypertension For the sake of completeness it also became necessary to add a humoral mechanism to the ischemic concept More recently, considerable doubt has been cast on the renal ischemic theory by several investigations, particularly the renal function studies of Smith, Goldring, and Chasis of this hospital, and the kidney biopsies obtained at operation by Castleman and Smithwick

There are, however, many cases of hypertension secondary to kidney disease These include instances of acute and chronic glomerulonephritis chronic bilateral pyelonephritis, obstructive uropathies periarteritis nodosa, amyloidosis, and polycystic kidneys Hypertension is common in acute glomerulonephritis, but may be absent The association of hypertension with chronic glomerulonephritis is a matter of common knowledge However, it should be noted that renal insufficiency is not the factor responsible for the hypertension Chronic bilateral pyelonephritis is a distinct clinical entity, and is a disease of long duration Symptoms of renal insufficiency may not appear for ten or fifteen years after the infection is first initiated Except for the terminal phase, the symptoms are usually slight and vague Starting with pyelitis or acute pyonephritis, there may be, from time to time, attacks of unexplained fever, pain in the lumbar region, and pyuria and albuminuria The blood pressure is not elevated during the early stages of the disease, but may reach very high figures during the latter months Likewise, there are no retinal changes until the disease is far advanced In addition to the presence of red and white blood cells and albumin in the urine, there is progressive impairment of renal function with fixation of the specific gravity at a low level and mounting azotemia The pyelogram shows characteristic changes—distortion, flattening, and reduction in the size of the pelvis Death is usually in uremia The pathologic changes in the kidneys suggest that the progress of the disease is caused by gradual destruction and scarring of many portions of the kidneys It is to be emphasized that hypertension occurs during the latter stages of the disease, when the kidneys are contracted and atrophic, and is associated with vascular sclerosis

Nephrolithiasis alone is not a cause of hypertension, but renal stone with hydro- or pyonephrosis may lead to hypertension in the advanced phase of the disease when there are extensive atrophic changes in the renal parenchyma This applies also to other forms of obstructive uropathy It is not the hydro- or pyonephrosis that affects the blood pressure, but the parenchymal atrophy and vascular sclerosis In this connection it may be of interest to note that hypertension is uncommon in renal tuberculosis, in spite of extensive parenchymal changes This may be explained by the fact that vascular sclerosis appears to be uncommon in tuberculous kidneys

The status of the relationship of renal tumors to hypertension is still vague and unsettled Hypertension is common in periarteritis nodosa, but as a rule, only if there is extensive renal involvement It is, of course, well known that hypertension can be associated with amyloid contracted kidneys and with polycystic disease of the kidneys

Now, let us see where our case best fits in The outstanding clinical and laboratory features were hypertension, anemia, albuminuria, pyuria, hematuria, fixation of the specific gravity of the urine at a low level, and azotemia Most of us did not feel an abdominal mass Nor did we hear an aortic diastolic murmur The gastrointestinal x-ray was negative and the intravenous pyelogram medium failed to be visualized There was achlorhydria and blood in the stools Death was caused by uremia

The diagnosis appeared to rest mainly between chronic pyelonephritis and pyonephrotic contracted kidneys The presence of hematuria and pyuria, in the absence of an obvious obstructive lesion, led us to favor the diagnosis of chronic bilateral pyelonephritis The presence of cerebrospinal syphilis was suspected and regarded as incidental Dr Mosenthal, what is your impression of this case?

DR HERMAN O MOSENTHAL We will discuss the genitourinary tract first because the probabilities you mentioned are the most certain The fact that pus was present raises the question of tuberculosis, but the mass suggests pyelonephrosis This may have begun with a prostatic infection, as found at another hospital, with a sec-

ondary kidney involvement. That the kidney was involved was proved by the pyelograms. It was not of longstanding duration, however, because the albumin was normal and there was no edema. The blood pressure is as you mentioned in regard to renal disease, but here the hypertension suggests nephrosclerosis. The evidence of marked renal insufficiency is overwhelming and the phenolsulfonphthalein would therefore appear to be incorrect.

DR. APPELBAUM: We also feel that the phenolsulfonphthalein was incorrect. What is your experience regarding bleeding in bilateral pyelonephritis?

DR. MOSENTHAL: It may or may not be present. We cannot rule out tuberculosis without a guinea-pig inoculation when bleeding is present.

DR. APPELBAUM: But then one would not have high blood pressure.

DR. MOSENTHAL: That is true. Homer Smith has shown that unilateral kidney disease can produce hypertension. In this case, the error made is one that is common. The prostatic infection found by the first urologist was not investigated and the genitourinary tract was not further studied. We cannot know where the pus is coming from without retrograde pyelography, but I would favor the diagnosis of right-sided pyonephrosis with bilateral pyelonephritis.

DR. BEECKMAN J. DELATOUR: I think that hypernephroma should be raised as a possibility. We have not ruled it out.

DR. HENRY C. FLEMING: Tuberculosis was not found, but might have coexisted. Anything starting off with primary hematuria should arrest our attention to the possibility of tumor. When present with pus, it suggests the possibility of tuberculosis. If a mass was present and then disappeared, it would strongly suggest an abscess that collapsed after draining. My impression is that this patient had pyelonephritis with a right perirenal abscess. Concerning the blood in the stools, where did it come from? I think he had, in addition, Laennec's cirrhosis with a bleeding esophageal varix.

DR. ARNOLD KOFFLER: There are several inconsistent features in this case. The hematuria was more than could be accounted for in ordinary pyelonephritis. The gastrointestinal bleeding was probably due to chronic uremia with gastrointestinal ulceration.

DR. MAX TRUBEK: There was too much blood and too much pus for pyelonephritis. I think he had hemorrhagic cystitis with ascending pyelonephritis and multiple bilateral kidney abscesses. As Dr. Mosenthal mentioned, the high albumin in the presence of so much albuminuria is evidence against a longstanding and chronic kidney infection.

Presentation of Pathology

DR. HENRY SPITZ:

Anatomic Diagnosis:

Severe chronic cystitis
Chronic ureteritis and periureteritis
Chronic pyelonephritis with abscess formation
Bilateral pyoureter and pyelonephrosis
Bilateral chronic perinephritis
Arteriolosclerosis of kidneys, pancreas, adrenals, and liver
Hypertrophy and dilatation of heart
Edema of lungs
Chronic balanitis

The involvement of the urinary tract was extensive and severe. The urinary bladder was enlarged, thick walled, coarsely trabeculated with formation of small diverticula, and the mucosa showed patchy congestion. The urine was mixed with pus. The prostate was of normal size and consistency and the prostatic portion of the urethra showed no gross abnormalities. The balanitis did not cause any apparent stricture and was probably due to pressure by a retention catheter. Both ureters and renal pelves were markedly dilated and filled with pus. The ureters were elongated, tortuous, and embedded in dense fibrous adhesions. The kidneys were roughly bosselated and felt cystic. The calyces were markedly dilated, the pyramids indented, and in some areas the renal parenchyma was reduced to a mere shell 2 to 3 mm. in thickness. The better preserved portions of the kidney showed loss of the usual architectural markings and yellow and gray streaks radiating toward the capsule and small, soft, yellow areas scattered through the cortex. The fibrous and fatty capsules were indurated and densely adherent to the kidney. When they were stripped a finely granular brownish-red surface was revealed. Histologically the picture was that of severe pyelonephritis associated with abscess formation and rather diffuse arteriolosclerosis. In the areas of scarring and inflammatory infiltration, the larger arteries also showed considerable sclerotic changes.

The aorta and the aortic valve showed no gross or microscopic evidence of syphilis. The spinal cord was not examined and the brain showed too much autolysis to permit adequate histologic study.

The liver was rather small and showed only mild brown atrophy. The stomach showed atrophy of the mucosa, and in the remainder of the gastrointestinal tract no ulcers or other obvious sources of bleeding were found.

This case, therefore, apparently represents the late stage of an ascending infection of the urinary tract with arteriosclerosis of the kidneys and

hypertension Since no stricture or hypertrophy of the prostate was present it might be assumed that stasis and back pressure of urine was partly due to the results of inflammatory changes It is difficult to evaluate what role the tabetic condition played in this connection

MANY SKIN AILMENTS MADE WORSE BY IMPRUDENT USE OF REMEDIES

The all too-common habit of daubing with the nearest thing at hand [illegible] of the skin that be-itch often causes painful work unnecessary expense, and hospitalization even the acquiring of skin sensitization to a substance Dr L Edward Gaul Dubuque, Iowa warns in The *Journal* of the American Medical Association for February 24

"Almost every day," Dr Gaul says skin lesions are observed that have been made worse by imprudent topical therapy Even neoplasms are not spared from the 'put something on it' impulse A similar situation must exist on the West Coast, because at a forum on overtreatment in dermatology H E Miller stated that 'a comparatively large number of patients in routine dermatologic practice are forced to seek treatment because of irritation from remedies applied and not due to their primary complaints' Apparently all that the skin has to do is to complain a little—an evanescent erythema or pruritus—and it is impulsively daubed with the nearest thing at hand "

He believes that not only should the indiscriminate application of various substances to the skin be discouraged but also that a more complete evaluation of drugs used on the skin "might lead to a decline of the incidence of overtreatment dermatitis

'The creation of the Council on Pharmacy and Chemistry of the American Medical Association served to rob of glamour the old oral concoctions and potions it sifted the wheat from the chaff Today oral drugs are fairly well defined Dosage, indica- all toms other of 'tr- the a- prov- this practice that causes overtreatment dermatitis In skilled hands this 'try-stop-try' method is controlled In unskilled hands which treat the major portion of acute dermatoses too much treatment of [illegible] tacks [illegible] the skin m- ortreatm- of the wheat from the chaff and this time to rob of glamour the cutaneous drugs irrespective of the real or fan- ons to apply skin can be used to great advantage by the physician By means of a comparatively simple test it can be found which substance is an irritant or sensitizer in the remedies which have been applied by the patient Such a test also permits the physician to prescribe a preparation avoiding those substances which have caused the patient's difficulties Such tests also often provide a means of determining the original source of the skin condition As an example Dr Gaul cites the case of a man who was found to be strongly sensitive to a tar salve When advised of this the patient recalled that the skin condition appeared after he had tarred a roof A positive test to a substance in a remedy may also make it possible to trace the distribution of the substance in normal trade channels, thus possibly disclosing additional contacts and aiding in deciding the occupational or nonoccupational cause of the skin inflammation of others who have come in contact with the substance

Dr Gaul reports several case histories from a study he conducted to determine some of the causes of overtreatment dermatitis He says that for the most part the patients showed an eager interest in uncovering and comprehending the evils of their own doing and that the manufacturers of proprietary products were most cooperative in furnishing individual ingredients of their products

In a footnote to his report, Dr Gaul advises that "organic mercury compounds have led all the other cutaneous drugs in producing positive patch tests It would seem appropriate that tinctures salves, and lotions containing a mercury compound should bear a warning on the label of the presence of a sensitizer"

Among the cases reported by Dr Gaul was one of a student nurse whose hand was burned from spattering bacon grease and who painted the burn with the tincture of an organic mercurial When the hand became swollen and inflamed, she applied during the ensuing three weeks petrolatum gauze, sulfanilamide and sulfathiazole powders and ointments, boric acid ointment a burn ointment, and calamine lotion A patch test was positive for the organic mercurial Later it developed that the patient had acquired a mercury sensitivity with the result that a change of education was required so as to avoid mercury contact which is relatively frequent in the nursing profession

In another case, scratches on the knee and elbow of a boy were wiped with kerosene and a burn ointment applied, followed by a pink salve, boric acid [illegible] organic mercurial There was a partial disability of five weeks Some of the other cases cited by Dr Gaul involved the application of numerous salves and other substances for such conditions as insect bites, so-called fungous infection of a thumb, and 'athlete's foot" In one instance there was a total disability of eight weeks over two of which were spent in a hospital

Postgraduate Medical Education

Programs arranged by the Council Committee on Public Health and Education of the Medical Society of the State of New York are published in this Section of the JOURNAL. *The members of the committee are Oliver W. H. Mitchell, M.D., Chairman (428 Greenwood Place, Syracuse); George Baehr, M.D., and Charles D. Post, M.D.*

Cancer Teaching Day in Broome County

A CANCER teaching day was presented on June 6 at Phelps Hall, Binghamton, under the auspices of the Medical Society of the County of Broome, the Sixth District Branch of the Medical Society of the State of New York, the Tumor Clinic Association of the State of New York, the Medical Society of the State of New York, and the New York State Department of Health, Division of Cancer Control.

The afternoon meeting was called to order at 4:00 P.M. by Dr. Alfred L. Standfast, attending radiologist at Binghamton City Hospital, as chairman of the meeting. There were opening remarks by Dr. Frank G. Moore, president of the Medical Society of the County of Broome. Two lectures followed.

They were: "Treatment of Cancer of the Cervix," by Dr. Howard C. Taylor, Jr., attending surgeon at Memorial Hospital, New York City, and "Cancer of the Stomach," by Dr. George T. Pack, attending surgeon, Memorial Hospital.

Dr. Victor W. Bergstrom, attending pathologist at Binghamton City Hospital, was chairman of the evening meeting, held at 7:30 P.M. Dr. Ernest M. Watson, chief attending urologist at E. J. Meyer Memorial Hospital, Buffalo, spoke on "Malignancies of the Genitourinary Tract," and Dr. Norman Treves, associate surgeon at Memorial Hospital, New York City, spoke on "Cancer of the Breast."

Dinner was served at 6:15 P.M. at Binghamton City Hospital.

The local committee in charge of the teaching day consisted of Dr. Victor W. Bergstrom, chairman, and Drs. James W. Colella, John J. Cunningham, Harry H. Levy, Alfred L. Standfast, and Florence E. Warner.

MUSCLE DYSTROPHY REMEDY

A remedy for muscular dystrophy may come from a new chemical to be made from two vitamins, it appears from research reported by Dr. Ade T. Milhorat and Dr. W. E. Bartels, of Cornell University Medical College and New York Hospital (*Science*, January 26).

The vitamins are tocopherol, also known as vitamin E and as the fertility vitamin, and inositol, one of the B vitamins. Neither of them alone is expected to be helpful. Large doses of both given together may help patients with a mild form of the disease. For those in whom the disease is more rapidly progressive, the new condensation product of the two vitamins will be needed, the doctors believe.

Whether this product actually will help patients cannot be stated at present because the doctors have not had enough of it for trial. They hope to get and try it soon.

Laboratory tests and studies of animals are the basis for the hope that the condensation product of tocopherol and inositol will be an effective remedy for progressive muscular dystrophy. This disabling disease is characterized by marked weakness associated with degenerative changes in the affected muscles. There is also an abnormal excretion of the chemical, creatine.

Creatine is present in muscles as part of the compound, phosphocreatine. When muscles contract, this compound breaks down into creatine and phosphoric acid. In the recovery of the muscle the two substances are recombined into phosphocreatine.

The Cornell scientists had just enough of the new chemical to try the effect of single doses in a few patients. The abnormal excretion of creatine was reduced for a few days, which encourages them to believe that continued treatment will prove helpful.

Muscular dystrophy very similar to that in patients can be induced in laboratory animals by withholding tocopherol from their diet. Doses of tocopherol by mouth promptly reduce the abnormal creatine excretion and restore muscular function in the animals.

Tocopherol alone has no effect in human patients. The reason, apparently, is that progressive muscular dystrophy results from an inherited defect in the body's handling of tocopherol and inositol in food. Normally the condensation product of these two substances can be made in the body but patients with muscular dystrophy lack the ability to make the product.

Patients with a mild form of the disease apparently can make enough of the product if given large amounts of the two vitamin chemicals. Those with a more severe form of the disease cannot. For them the new chemical, if it comes up to expectations, will be what insulin is to diabetics.—*Science News Letter, Feb. 3, 1945*

Medical News

National Health Council Re-elects Officers

THE National Health Council announces the re-election of Mrs. Eleanor Brown Merrill as president for the coming year. Mrs. Merrill is executive director of the National Society for the Prevention of Blindness.

Others officers, who were also re-elected, are: vice-president, Dr. Walter Clarke, executive director of the American Social Hygiene Association, secretary, Prof. Maurice A. Bigelow, president of the American Eugenics Society; treasurer, Dr. William F. Snow, general director of the American

uncil, with headquarters
nty-one
voluntary heal of its
activities, the of six
thousand volumes and thirty thousand pamphlets dealing with public health and related subjects; more than five hundred professional journals and technical periodicals are received regularly.

Retirement of Dr. Senftner

DR. HERMAN F. SENFTNER, associate director of the Division of Communicable Diseases and a valued member of the Department's official circle, retired May 1 after twenty-eight years' service.

Dr. Senftner has spent his professional career al-
After being
al College,
practice in
portion of
rest in the
led him to
University
the degree
of Dr.P.H. in 1916. After serving for a short time in the California State Health Department, he accepted an appointment in 1917 on the staff of the New York State Department of Health as sanitary supervisor—a position corresponding to the present "district state health officer." He was stationed in Buffalo with jurisdiction over the counties of Erie, Niagara, Orleans, and Genesee.

A few months later he was called upon to take over t ion of Child
In I epi-
demic Dis-
cases, his duties involving primarily the investigation and control of epidemics, and since 1924 he has been associate director of the Division. In addition to assisting in the administration of the general functions of the Division, he has given
e prevention
epidemic of
was acting
director of the Division and was responsible for the task of organizing and administering emergency measures in the upstate area to cope with the situation. Convalescent serum was also made available to determine what benefit, if any, might be derived from its administration.

In the course of his long and active career, Dr. Senftner has made a number of contributions to medical literature, including articles on the subjects of typhus fever
fever. Within
as the "watchd
Division because of his alertness to any unusual prevalence of communicable disease and his care in assuring that the Division was covered [illegible]

department officials joined in extending to him hearty wishes for happiness in his retirement.

County News

Albany County

The regular monthly meeting of the county society was held on May 23 at 8:30 P.M. in the auditorium of the Albany College of Pharmacy. Dr. Joe Vincent Meigs, surgeon-in-chief of the Vincent Memorial Hosp of Massachusetts
sor of gynecol
spoke on "Diat
of the Cervix."
A. Sutton participated in the discussion.

Cayuga County

The Cayuga Health Association offered a free chest x-ray to all school teachers and other school employees and also to all high school seniors through-

of the Christmas seals.*

The annual meeting of the Cayuga Health Association was held at the Woman's Union, Auburn, on April 26 with the president, Dr. M. Leroy Seccomb, presiding. The work of the Association during the past year was reviewed and plans were made for the continuation and expansion of every phase of its effective program.

Dr. N. Stanley Lincoln, superintendent, and Dr. Frederick Beck, of Biggs Memorial Hospital, Ithaca, were guests.

Dr. Seccomb was re-elected president, Joseph F. X. Iacovino, first vice-president, and Mrs. Robert

* Asterisk indicates that item is from a local newspaper.

L. Mosher, secretary. Mrs. Edward S. Platt was elected second vice-president to succeed Mrs. A. B. Chidester, and Ralph A. Inman, treasurer, to succeed Charles Goldman.

The directors re-elected for three years include Mrs. A. B. Chidester, Mrs. W. H. H. Kennedy, Dr. Charles G. Hetherington, Mrs. Carrie D. Gibson, and Mrs. Edward S. Platt, all of Auburn, and Mrs. Charles L. Kilborne, of Moravia.

Miss Adrienne Proskine was elected a director to succeed Edwin R. Metcalf and Dr. L. D. Burlington, of Aurora, was elected a director to serve out the unexpired term of the late Mrs. P. J. Brennan, of Aurora.*

Chemung County

Dr. Anna M. Stuart, of Elmira, was presented with the honorary degree of Doctor of Humane Letters at Elmira College graduation on May 28.

In citing Dr. Stuart for the honor, college officials today praised her not only for service to humanity through the medical profession but also for her keen interest and participation in the cultural aspects of life.

A member of the Arnot-Ogden Hospital staff, she has been pathologist, anesthetist, and a member of the pediatrics staff. When in 1934 she relinquished the position as pathologist which she had held since 1907 when the hospital laboratory was established, she was honored at a dinner at the hospital given by the Board of Managers and members of the medical and surgical staffs.*

Columbia County

The semiannual meeting of the county society was held at the Columbia Country Club on May 9. Dr. L. W. Gorham, professor of medicine, Albany Medical College, spoke on "Penicillin."*

Dutchess County

Several speakers on cancer were assigned to address community groups as part of a joint drive by the county society and the Dutchess County Health Association to acquaint the public with cancer.

On May 1, Dr. Howard Townsend spoke to members of Fallkill Grange. On May 3, Dr. Bertrand E. Roberts addressed the Dover Plains Health Committee at the home of Mrs. James A. Benson. On May 4, Dr. J. Spottiswood Taylor spoke to the Fishkill Health Committee.

Dr. Jane North Baldwin addressed the Red Hook Nursing Association on May 8, and on May 10, Dr. Taylor spoke to the Stanford Health committee at the home of Mrs. John Battistoni, of Bangall.

Other speakers were assigned to address the American Legion Auxiliary on May 5, and the Northern Dutchess Nursing Service, Rhinebeck, on May 21.*

Erie County

In observance of the fiftieth anniversary of his graduation from medical school, Dr. Nelson G. Russell, of Buffalo, was honored on April 26 at a special meeting of the city's advisory health board, of which he is chairman. He also is chairman of the board of managers of Meyer Memorial (City) Hospital.

Dr. Russell, 73, one of the oldest practicing physicians in the city, was graduated from the University of Buffalo School of Medicine in 1895.

Health Commissioner Francis E. Fronczak told Dr. Russell the special meeting was called so board members and the five hundred employees of the health department could express their appreciation of his outstanding services to the city and the medical profession. The board's congratulations were extended by William J. Hoffman and Mrs. Evelyn Johnson.

"I thought we had something important to discuss," Dr. Russell said. "I dislike to be reminded of those fifty years, but I do appreciate your expressions of regard."*

* * *

In observance of Spring Clinical Week, noted physicians and instructors addressed members of the county society at the Hotel Statler on April 24 and 26.

Dr. Isaac Starr, of the University of Pennsylvania School of Medicine, lectured on "Old and New Concepts of Congestive Heart Failure" on May 1 at 8:30 P.M. in the Georgian Room. Later, discussion was led by Dr. James E. Patterson and Dr. Dexter S. Levy.

A cancer teaching day was held on May 3 in the Fillmore Room. Dr. Donald Guthrie, of Pennsylvania, and Dr. Lloyd F. Craver, of Manhattan, spoke at the afternoon meeting and Dr. Hayes Martin and Dr. John H. Garlock, of Manhattan, spoke during the evening. A dinner was held at 6:30 P.M.*

* * *

Twenty-two members of the Buffalo Surgical Society visited Rhoads General Hospital on April 18 and were entertained by Col. A. J. Canning, commanding officer.

The doctors, according to Dr. John C. Brady, president of the society, were interested in seeing what types of surgical care are given wounded veterans. They were escorted about the hospital by Col. Clyde O. Barney, Maj. Robert Perlman, and Capts. Newton McCollough, Gerald Jones, and Louis C. Roettig.

During their tour the doctors were informed of the most recent developments in surgery and post-operative care. Dr. Brady said the Buffalo surgeons were particularly pleased with the opportunity to visit Rhoads because it afforded a chance for them to observe a great many cases of certain types which they would not be able to observe in civilian practice.

Those making the visit, in addition to Dr. Brady, were Drs. W. Ward Plummer, J. Sutton Regan, Patrick H. J. Buckley, Allen Richter, Julius Richter, James E. King, Julius Kohn, Eugene Sullivan, Augustus W. Hengerer, Elmer McGroder, Edward Storck, Harvey P. Hoffman, Alfred H. Noehren, Dennis Hennessey, Descum C. McKenney, Frank Potts, Edmund Reimann, Ralph Upson, John Kohl, Grant Fisher, and Andrew Charters.*

Fulton County

Capt. Howard V. Sprague, (MC), USNR, now stationed at the Naval Hospital at St. Albans, was guest speaker at the regular meeting of the county society, held on April 25 at the Elms. Dinner preceded the program. Dr. Morris Kennedy, president, was in charge.

About forty physicians, including a number from Montgomery County, attended the meeting.

Captain Sprague, a specialist in heart ailments, was formerly chief of medicine on a mobile hospital and the hospital ship U.S. Solace, and was located for a year and a half in the Southern and Central Pacific.

Before entering service, he was associate physician of the Massachusetts General Hospital, and was instructor at the Harvard Medical School For twenty years he was associated with Dr Paul D White, heart specialist *

* * *

Dr J Edward Grant, of Northville was re-elected president of the Fulton County Tuberculosis and Public Health Society at the annual meeting held on April 18 in the Gloversville Free Library Mrs Iva W Holmes, of Johnstown, was re-engaged for the sixth year as executive secretary of the society The annual seal sale exceeded all previous records with a total of $10 672 95

Other officers re-elected during the meeting are Mrs Jessie C Doubleday, of Johnstown vice president, Mrs Alice I Haynes, of Gloversville, secretary, and Edward H Mills, of Gloversville, treasurer

The following were re-elected for a period [illegible] Mrs Van Voast, Mrs [illegible] Del Negro Attorney [illegible] James D Coon, R Bush, Johnstown, Mrs Alan Belding [illegible] man, Stratford, and directors were named by the nominating committee headed by Mrs Guy Johnson, of Gloversville *

Greene County

Despite the inclement [illegible] of Catskill Post No [illegible] members met on April [illegible] Hall to pay tribute to Honeyford Catskill physician and past commander of the Post, through whose efforts the hall, which now bears his name, was secured This occasion is an annual observance by Catskill Post

Dr Lawrence M Schmidt program chairman reviewed Dr Honeyford's life and the work he accomplished in the village *

Jefferson County

The second issue of the *Northern New York Medical Journal*, published by the county society, is just off the press and copies are being mailed to members and friends of the medical profession in northern New York

The [illegible] year by the county composed of Dr [illegible] Dr [illegible] Dr George F Bock, D S Montague, and Gardiner E Vincent, business manager

The first issue of the annual medical publication made [illegible] Like [illegible] and one features organ [illegible] are prepared and written by members of the society News items concerning members of the profession, many of them now serving in the armed forces in various parts of the world, form an important and interesting department of the 72 page magazine Photographs accompany news articles of the men in service Scientific articles written by the doctors are also illustrated *

Kings County

The stated meeting of the county society was held on May 15 in MacNaughton Auditorium The program consisted of two lectures "The Use of Five Per Cent Sulfathiazole Ointment in an Emulsion Base for the Prevention of Possible Infection in Newborn Infants," by Dr Charles A Weymuller professor of pediatrics at Long Island College of Medicine, and "An Evaluation of Subtotal to Total Paravertebral Sympathectomy, Splanchnicectomy, and Celiac Ganglionectomy as a Surgical Treatment for Certain Patients with Hypertension," by Dr Keith S Grimson, associate professor of surgery, Duke University

Monroe County

Col Edward T Wentworth, (MC),USA has been selected as the Albert David Kaiser medalist for 1945 by the Rochester Academy of Medicine, according to Dr Walter S Thomas, chairman of the awards committee The award was made at the annual meeting of the Academy on May 1, and was presented to Mrs Wentworth in the absence of her husband Colonel Wentworth's war service record combined with his wide community service and medical honors, easily made him the unanimous choice of the committee

In 1940, Colonel Wentworth organized the present General Hospital 19 and shortly after Pearl Harbor was called to active duty He now commands Base Hospital 19 in Europe

He graduated from Harvard Medical College in 1913 and he interned and later was a resident at the Rochester General Hospital and has been in practice in Rochester since that time except for his war service He is chief orthopedic surgeon of the Rochester General and the Park Avenue Hospitals and consulting orthopedic surgeon of the Strong Memorial Hospital, the Monroe County Infirmary, and Iola Sanitorium

He is a past president of the county society and the Rochester Pathological Society, a Diplomate of the American Board of Orthopedic Surgery, and a Fellow of the American College of Surgeons *

New York County

The stated monthly meeting of the county society [illegible] Age and Health"

* * *

The regular monthly meeting of the Association for the Advancement of Psychotherapy was held on May 25 at 8 30 P M in the New York Academy of [illegible] Fatigue" [illegible] These talks were followed by discussion

Oneida County

Dr Edson R Goodrich, of Rome, a practicing physician in Chaumont France, when the Germans arrived in 1940 described his experiences there at [illegible] April as an [illegible] 6 and [illegible] on the Mexican border, he went back to France as a captain in the Medical Reserve Corps, where he opened the 21st Division Camp Hospital

After the war he remained in France practicing in Chaumont He was permitted to leave the country in October, 1940 *

Onondaga County

A Syracuse doctor, Lt. Col. Henry van Zile Hyde, has been appointed to a high post with the United Nations Relief and Rehabilitation Association. Colonel Hyde will be chief of the Medical Division of U.N.R.R.A.'s Middle East headquarters in Cairo, Egypt.

The U.S. Public Health Service officer, on detached service with U.N.R.R.A., will be assisting in the repatriation of one hundred thousand Greeks, Yugoslavs, and Poles in North Africa and the Levant who fall under U.N.R.R.A. jurisdiction for their return home.

Colonel Hyde has been engaged in this humanitarian work in the Middle East for more than a year, and has controlled supplies of penicillin for civilians there In this work he has been instrumental in forestalling epidemics in North Africa.

An expert in preventive medicine, and former member of the staff of Johns Hopkins Institute, Baltimore, Colonel Hyde resigned his post as director of the Field Casualty Section of the U.S. Office of Civilian Defense to go to the Middle East.

Previously he had been director of the Bureau of Pneumonia of the State Department of Health, an appointment received early in 1941.

He is a graduate of Johns Hopkins University; he interned at Johns Hopkins Hospital and for two years was resident physician in Strong Memorial Hospital and Municipal Hospital, Rochester.

Coming to Syracuse, he became clinical instructor in medicine at Syracuse University. He is a specialist in internal medicine and has contributed articles to medical and other scientific journals.

Colonel Hyde has served as an examining physician of the Tuberculosis Clinic, an associate examiner on the National Board of Medical Examiners, an assistant physician on the staffs of Syracuse Memorial and University Hospitals and of the Syracuse Free Dispensary, chairman of the Publications Committee of the Syracuse Academy of Medicine, delegate to the Fifth District Branch of the American Medical Association from the county society, editor of the *Bulletin*, monthly publication of the county society, and at one time was an instructor in medicine at the University of Rochester.*

Ontario

"Endocarditis Refractory to Penicillin," was the title of a paper by Dr. Francis V. Oderkirk, of Victor, given at the meeting of the Canandaigua Medical Society on April 6 in the Canandaigua Hotel. Dr. Frederick C. McClellan, president, was host at dinner preceding the program.*

• • •

Lt. Comdr. Jacob F. Heinrich, (MC)USNR, physician in charge of the department of tuberculosis at the U.S. Naval Hospital in Sampson, addressed the Ontario County Tuberculosis and Health Association on April 25 at the Clifton Springs Sanitarium.

Lieutenant Commander Heinrich is one of the pioneers in developing technics and determining the practicability of mass chest x-rays. He reported to Sampson in March, shortly after it was announced that the Naval Hospital at Sampson would become the Navy's eastern center for the treatment of all active tuberculosis cases east of the Mississippi.*

• • •

Dr. M. Edgerton Deuel, of Geneva, was re-elected president for another year of the Ontario County Committee on Tuberculosis and Public Health at the annual dinner meeting in Clifton Springs on April 25.

Others elected to serve with Dr. Deuel are John Hamlin, of Holcomb, first vice-president; Dr. John W. Karr, Clifton Springs, second vice-president; Mrs. Ben Whiteman, Geneva, secretary, to succeed Mrs. Croydon Wheat, and W. Horace Rogers, Geneva, re-elected treasurer.

Three new directors chosen and those they succeed are: Mrs. Ben Whiteman for Dr. Stuart Cole, Geneva; John Hamlin for the late Anson Rogers, of Bristol; and Harry Kidder, of Canandaigua, for Dr. A. W. Armstrong, of Canandaigua.*

Otsego County

Dr. LeRoy S. House, of Oneonta, head of the x-ray and electrotherapy department at Fox Hospital, has been elected to fellowship in the American College of Radiology, Chicago, Illinois, it was announced on March 26 by Dr. Eugene P. Pendergrass, chairman of the college board of chancellors.

"The degree of fellowship is conferred, as provided in the Constitution, on the basis of outstanding contributions and service to radiology," Dr. Pendergrass informed Dr. House. "We think you have every reason to be proud of the honor bestowed upon you by the Fellows of the College, and we take this occasion to offer our sincere congratulations. As an active Fellow, you will have further opportunity to participate in the work of the college for the welfare of all radiology."*

Queens County

Benefits of medical social service in the hospital and to the patient were discussed at a forum of the Queens Medical Social Service Committee of the United Hospital Fund on April 17 at the County Medical Society Building, Forest Hills.

Among the speakers were Dr. Claude W. Munger, director of St. Luke's Hospital; Sister Loretto Bernard, R. N., administrator of St. Vincent's Hospital; Mrs. Glee Hastings Dervend, director of social service, Hospital for Special Surgery; and Mrs. Curry Watson, chairman of the Medical Social Service.*

• • •

The stated meeting of the county society was held jointly with the Queens County Dental Society on April 24 at 9:00 P.M. Dr. Theodor Blum, D.D.S., M.D., spoke on "A Conservative Approach to Oral Problems of Medicodental Interest." Andrew J. Sullivan, president of the Association of American Physicians and Surgeons, Inc., discussed the aims of that organization.

• • •

On May 18 the Committee on Graduate Education of the county society presented Dr. Foster Kennedy, chief of the department of neurology, Bellevue Hospital, professor of neurology, Cornell University Medical College, and consulting physician, Neurological Institute, discussing "Nervous Conditions Associated with Warfare." The meeting was held at 4:30 P.M. in the County Society Building.

Rensselaer County

Dr. James J. Evans, of the Lahey Clinic, Boston, was the guest speaker at the April 10 meeting of the county society at the Troy Club.

Dr. Evans, guest at a dinner prior to the business

meeting, spoke on "Postoperative Thrombophlebitis and Pulmonary Embolism." Dr. John F. Connor, president, was in charge of the meeting.*

Richmond County

Dr. Natale Colosi, professor of bacteriology at Wagner College, who was recently appointed a member of the Interstate Sanitation Commission by Gov. Thomas E. Dewey, was given a testimonial dinner on April 25 by [illegible] way Hospital, at the [illegible]

Dr. Colosi, directo [illegible] Manhattan, has made several bacterial surveys of the Lower Bay in recent years to determine the extent of pollution and its effect on bathing and clamming. He is the only bacteriologist on the commission.*

* * *

"One of our greatest problems is to encourage patients to come to the doctor soon enough and in order to do this every member of the community must be familiar with the common and early signs of cancer," Dr. Milton S. Lloyd told members of the health committee of the Staten Island Council of Social Agencies on April 10. The session was conducted in the Richmond Health Center, St. George.

Dr. Lloyd, president of the county society, speaking to the group as director of the Staten Island Cancer Committee, gave a picture of cancer especially among middle and old-age groups.

"However, progress is being made in the field of research but much is yet to be done. We should direct our efforts toward public education and an increase of hospital facilities," he concluded.

The next meeting of the health committee was on May 8.

Dr. Lloyd, later spoke on the "Tree of Life" at a meeting of an American Red Cross home nursing [illegible] School 8, [illegible] to Live"

[illegible]

* * *

What Staten Island and New York City schools [illegible]

[illegible]

Island educators [illegible] attended

Sponsored by [illegible] Association, the [illegible] and the local school boards, the conference featured other speakers, on social, religious, health, and community subjects.*

* * *

Dr. Nello Nepola, of New Dorp, has opened his office for the practice of medicine there.

Dr. [illegible] from [illegible] Univer- [illegible] intern- [illegible] ton, and from 1942 until very recently, he served a three-year-residency in surgery at New York Postgraduate Medical School and Hospital, Manhattan.*

Saratoga County

The county society held its spring meeting at Newman's Lakehouse on April 26, opening with a business meeting at 4:00 P.M., followed by dinner at 6:00 P.M.

Dr. Kenneth Crounse, of Albany, spoke on allergy.*

Schenectady County

The regular monthly meeting of the county society was held on May 1 in Biggs Memorial Library at Ellis Hospital.

Dr. Eugene Everett O'Neill, professor of surgery at Boston University and consultant in vascular diseases at Faulkner Hospital, in Boston, was the speaker. His subject was "Diagnosis and Treatment of Vascular Diseases of the Extremities."

* * *

The semiannual meeting of the county society was held at the Mohawk Golf Club on May 31. The program was as follows: luncheon at 1:00 P.M., business meeting at 5:00 P.M., and dinner at 7:00 P.M. Dr. Bertrand Shurtleff was the speaker.

Seneca County

The regular semiannual meeting of the county society was held May 10, 1945, at the Armitage Tea Room, Seneca Falls. The scientific program consisted of a lecture by Ellery G. Allen, Syracuse, on "General Résumé of Hematologic Disorders, Including the Anemias," followed by general discussion. This lecture was provided by the Medical Society of the State of New York, through its Council Committee on Public Health and Education.

Steuben County

Penicillin therapy was explained by Dr. Frederick T. Schnatz, assistant professor of medicine, University of Buffalo School of Medicine, at a meeting of the county society held at the Baron Steuben Hotel on April 12.

Dr. Schnatz' postgraduate instruction was presented cooperatively by the Medical Society of the State of New York and the New York State Department of Health.*

Sullivan County

A series of special classes in resort sanitation was offered to operators of hotels, camps, boarding [illegible] thousands of people from the city each summer.

"Because of its promixity to New York City," stated Dr. Calderone, "Sullivan County has become one of the most crowded resort areas in the country. With wartime travel restrictions curbing vacation trips to more distant regions, the Catskill section has attracted ever-increasing numbers of New York City vacationists.

"This tremendously increased patronage comes at a time of serious labor shortage," Dr. Calderone continued. "Many resort operators have been forced to [illegible] have atte [illegible] of guests [illegible] tions, the [illegible] improperly handled food or defective sewage disposal systems is definitely increased. The lectures and motion pictures given by the State Health Department in Monticello should be of great value to resort owners in improving sanitary conditions

and forestalling the possibility of such outbreaks during the summer months ahead."

* * *

Dr. Walter D. Ludlum, Jr., associate in traumatic surgery at the Post-Graduate Medical School, Columbia University, spoke before the county society at the Monticello Hospital on April 18 on the treatment of fractures of the femur and humerus as the sixth in a series of traumatic surgery lectures.*

Necrology

Joseph Grandson Byrne, M.D., died on May 13 in New York City, at the age of 74. Dr. Byrne was born in Ireland but was graduated from Columbia's College of Physicians and Surgeons in 1895. He served in the Spanish-American War and had practiced in New York City since 1898. He had been president of the medical board of Central and Neurological Hospital on Welfare Island, consulting neurologist at Fordham and Neurological hospitals, and a member of the advisory board of the New York City Department of Health. Dr. Byrne was interested in the mechanism of sensation and made many studies of it and contributed many articles on the subject to the literature.

W. Taylor Chamberlin, M.D., died in Hempstead on May 22, at the age of 69. Dr. Chamberlin graduated from Hahnemann Medical College in Philadelphia in 1898 and served his internship at Hahnemann Hospital, Philadelphia, and Brooklyn Homeopathic Hospital. He first practiced in Hutchinson, Kansas, but returned to Brooklyn to practice, later moving to Hempstead. He served as the first mayor of Hempstead. He was on the staffs of Brooklyn Pediatric, Cumberland, and Meadowbrook hospitals and was a member of the State medical society and the American Medical Association.

Charles Goodman, M.D., F.A.C.S., died on May 23 in his home in New York City. He was 73 years old. He was born in Hungary but received his medical education in this country, at Western Reserve University, Cleveland. He interned at Lying-In, City, and Mt. Sinai hospitals, in New York City, and did postgraduate study at the universities of Berlin, Goettingen, and Halle. At the time of his death Dr. Goodman was consulting surgeon at Beth Israel Hospital, and had been on the staffs of Mt. Sinai, Sydenham, Montefiore, Polyclinic, and Park West hospitals. He had served as clinical professor of surgery at New York University and Bellevue Hospital Medical College. He was a pioneer in modern blood transfusion and in 1936 he was a member of the Nobel Prize Nominating Committee in Medicine. He was a member of the State medical society and the American Medical Association, New York Academy of Medicine, American College of Surgeons, Eastern Medical Society, International Surgical Society, and Association of Military Surgeons.

Lawrence G. Hanley, M.D., of Buffalo, died on May 22, at the age of 82. Dr. Hanley graduated from Niagara Medical College in 1887, and subsequently was connected with Sisters Hospital, Buffalo, for sixty years. He was the first surgeon to serve on an ambulance in Buffalo and one of the first to perform an appendectomy there. He was a member of the Erie County society, the State society, and the American Medical Association.

Lee Maidment Hurd, M.D., F.A.C.S., of Rowayton, Connecticut, died on May 15 at the age of 71. He was professor emeritus of laryngology at New York University and Bellevue Hospital Medical College, and was consulting laryngologist at Downtown Hospital and attending laryngologist at Polyclinic Hospital. He graduated from the College of Physicians and Surgeons in 1895. Dr. Hurd was a member of the New York County and the State medical societies and the American Medica Association.

Barnet Joseph, M.D., of New Rochelle, died on May 9 at the age of 63. He graduated from Long Island College of Medicine in 1904 and specialized in internal medicine and conducted considerable research on diabetes. He had been professor of pathology at the University of Vermont and a director of Madison Hospital and at the time of his death was head of the tumor service at Downtown Hospital.

Adrian Z. Leon, Capt.,(MC),AUS, of New York City, was killed in action in Austria on May 3. Captain Leon was a graduate of Montepellier College of Medicine, in France, in 1936, and had done postgraduate work in Vienna, Paris, and New York City. He was assistant physician at City Hospital and assistant physician in the outpatient department of the Hospital for Joint Diseases. He joined the Army three years ago and was serving as battalion surgeon with the Seventh Army. He was a member of the county and State medical societies and the American Medical Association.

Gurdon Edgar Padget, M.D., of Cuyler, died on May 4 at the age of 79. He graduated from Syracuse University College of Medicine in 1904.

Benjamin Ritter, Maj.,(MC),AUS, formerly of New York City, was killed in action in Normandy on March 9. He graduated from New York University and Bellevue Hospital Medical College in 1931 and was clinical assistant surgeon in the outpatient department of Mt. Sinai Hospital. Major Ritter entered the Army in January, 1943, and had been overseas for twenty months. He was a member of the New York County and State medical societies and the American Medical Association.

Beryl W. Scully, M.D., of Rome, died on April 28 as the result of injuries suffered in an automobile accident. He graduated from Cornell University Medical College in 1933 and took postgraduate work in anthropology at Columbia. He interned at Bellevue Hospital. Dr. Scully was associate physician at Rome and Murphy Memorial Hospital and was a member of the Oneida County and State medical societies and the American Medical Association.

Toyohiko Takami, M.D., of Brooklyn, died at the age of 70 on May 16. He was born in Japan but received his education in this country and was graduated from Cornell University Medical College in 1906. He was consultant in dermatology at Cumberland Hospital and was an instructor in dermatology at Cornell University Medical College and Bellevue Hospital. He was a member of the New York County society, the State medical society, and the American Medical Association.

Hospital News

Improvements

The official opening of the new pediatrics wing of Long Island College Hospital was hailed as a notable achievement for the institution and an auspicious day for the community by speakers at the dedication.

At the ceremonies on April 18, Dr. Grover F. Powers, child specialist and professor of pediatrics of the Yale University School of Medicine, stressed that, with the expansion, Long Island College Hospital was "increasingly becoming a medical center and assuring a more abundant life for the borough's children."

Borough President John Cashmore, speaking both as a grateful former patient and city official, praised the men and women of the hospital for having "done a great job."

George Whitlock, executive vice-president of the hospital's board of regents, who presided, hailed the new department as a medical advance "accomplished under great difficulty."

Expressing his staff's appreciation, Dr. Charles A. Weymuller, chief pediatrician, praised Superintendent Bernard McDermott for having accomplished [illegible] wartime conditio[illegible] Dr. Weymuller ter[illegible] he institution's best friends who had long helped both the college and the hospital on important problems with his expert advice. Dr. Powers, remarking that he was proud to consider himself an honorary member of the staff, said that his interest was inspired by Dr. Frank L. Babbott. Dr. Babbott, former president of the medical school and now chairman of the board of regents, was guest of honor at the ceremonies.

After refreshments served by the dietary staff, the visitors and their guests were escorted through the new children's wing by physicians and nurses of the pediatric staff. Composed of small units, the department has twenty-two beds. When further expansion permits, Superintendent McDermott said, six more beds will be added.

Future plans, Mr. McDermott, Superintendent, declared, include having the children's surgical ward of thirty beds located on the same floor level. The proposed new ward would be located in a five-story addition to be erected when funds and building materials are available.

Besides wards, the new wing has classrooms and diagnostic and research laboratories. The hospital plans to amplify these facilities for the postgraduate training of physicians returning from war service.*

At the Helm

Dr. and Mrs. Fred Badt, who were residents of Germany and left the country a step ahead of the Nazi rise to power, have taken up their residence at Binghamton State Hospital, where the physician is entering upon his new duties as a member of the medical staff, according to announcement on April 19 by Dr. Hugh S. Gregory, director of the Hospital.

* * *

Rockaway Beach Hospital has a new advisory board, functioning as an adjunct to the hospital's board of directors.

The advisory board will sit with the board of directors and lend assistance in the conduct of the hospital's business affairs. It was believed that the board would prove particularly valuable at the present time, when the hospital has its campaign [illegible]

the advisory board. They are: William R. Brennan, William H. Gallagher, Nathan Cohen, Sol E. Slatin, Philip M. Basser, Louis Reichert, Philip J. [illegible] Wilham J. Morris, Julius C. Siegelman, Ralph S. Lazarus, Joel A. Abrahams, Benjamin Lord, and Max Gold.*

* * *

Robert J. Stack, of Cohoes, was named president of the Cohoes Hospital Association at the annual [illegible] t the [illegible], an [illegible] was

Other new officers named at the session are George F. Wertime, vice-president; Stanley H. Calkins, treasurer; and James B. Wright, secretary.

The following eight persons were re-elected as directors of the association for terms of three years each: E. A. Foster, Thomas E. Maycock, Ernest C. Game, Wilfred Sarrault, A. Raymond Van Santvoord, Rev. Valentine Gierlacki, J. Harry Lear, and James P. Dooley.*

* * *

Dr. B. C. Tillotson was re-elected president of the Glens Falls Hospital medical staff at the annual meeting in the hospital on May 1. Other officers re-elected were Dr. Edward J. Fitzgerald, vice-president, and Dr. W. W. Bowen, secretary-treasurer.*

Newsy Notes

Citizens of the Ossining area have contributed more th[illegible] Hospita[illegible] first rep[illegible]

by Walter L. Johnson, president of the hospital. The $300,000 fund is being sought to expand the hospital facilities to one hundred patient beds and fifteen bassinets by construction of an additional three-story wing, remodeling of portions of the

* Asterisk indicates that item is from a local newspaper.

present building, and purchase of needed new equipment.

The doctors of the hospital staff made a joint memorial gift of $34,000 and plan later to designate one or more units of the hospital approximating this amount as a memorial from the doctors.*

• • •

The will of Mrs. Charles E. Townsend, who died in Newburgh on February 26, probated before Surrogate Charles E. Taylor on April 17, left her residuary estate to St. Luke's Hospital, Newburgh, with the direction that the bequest be known as the "Dr. Charles E. Townsend Fund."

Persons familiar with the affairs of the late Mrs. Townsend estimated that the bequest to St. Luke's Hospital would amount to about $500,000.*

• • •

A card party for the benefit of the wounded, disabled, and sick veterans of both World Wars, who are patients at Sunmount Hospital, Tupper Lake, was held by the Wyszomirski Post, 701, American Legion, Newburgh, on April 22.

The project for which money is needed is for providing equipment that bed patients may see moving pictures on the ceilings of wards.*

• • •

Construction of the new U.S. Veterans Administration hospital at Crugers Park, on the Hudson near Peekskill, will start in August, according to word received from Washington by county officials. Gen. Frank T. Hines, head of the Veterans Administration, notified County Executive Herbert C. Gerlach that the government will purchase the county-owned park for the hospital site, on the county option of $125,000.*

• • •

Assemblyman Eugene F. Bannigan, Democratic leader of the Eleventh Assembly District, said on April 24 that he will introduce in the next session of the State Legislature, a resolution memorializing Congress to name the proposed Brooklyn Veterans' Hospital after the late President Roosevelt.*

• • •

State Attorney General Nathaniel Goldstein and former Mayor James J. Walker were the principal speakers at the annual dinner-dance of the Jewish Sanitarium and Hospital for Chronic Diseases on May 6, in the Waldorf-Astoria, Manhattan. The event marked the twentieth anniversary of the institution and also featured the first display of plans and sketches for the construction of a new $1,000,000 building.*

• • •

Looking toward a postwar future in which the demands on the modern hospital, because of trends in social service, will be no less than under present wartime conditions, Buffalo General Hospital on April 25 launched a $4,000,000 campaign to keep its facilities abreast of the times. The program contemplates accommodations for eight hundred and fifty patients, construction of a twelve-story main building, and renovations to present structures.*

• • •

A fund-raising campaign to finance the enlargement of Jamaica Hospital will be launched in the Fall, two hundred and fifty business and professional men of the community were told on April 25 at a dinner at the Pomonok Country Club, Flushing, which marked the twenty-fifth anniversary of the Jamaica Chamber of Commerce.

The announcement was made by Thomas D. Austin, Jamaica attorney and a director of the chamber, who was toastmaster at the dinner.

Mr. Austin also is a trustee of the hospital. He said that no decision had been reached on the size of the addition or a tentative date for starting construction of the wing to the present institution, which has two hundred beds. The financial campaign for the addition probably will start in August.*

• • •

The ninetieth anniversary of Woman's Hospital, New York City, was observed on May 4. When *Woman's Hospital opened in 1855 at 29th Street and* Madison Avenue it was the first hospital in the world for the treatment of diseases peculiar to women.*

• • •

Action on plans for construction of new buildings for Orange County's tuberculosis sanatarium, located in Newburgh, has been taken. A joint meeting of the public welfare and tuberculosis committee, the county treasurer and finance committee, and the building and grounds committee was called for May 11, in the County Building in Goshen, when recommendations of the board of the sanitarium for construction, improvement, and betterments were considered. The initiative for the meeting was taken by Supervisor T. Albert Farrington of the Fourth Ward, Newburgh, chairman of the building committee.*

• • •

The 15,000-ton United States Navy hospital ship *Consolation*, a converted cargo vessel, was commissioned on May 22 at the Bethlehem Steel Company shipyard in Hoboken with ceremonies at which the Purple Heart was presented to three survivors of a torpedoed Navy oiler.

The *Consolation* will be sent to the Pacific to provide hospital facilities for the Navy in forward combat areas and will not be used as a hospital transport ship.*

• • •

There is a 40 per cent membership increase in the New York women's division of the National Jewish Hospital at Denver, bringing its total to three hundred members, Mrs. Hal Horne, who heads the division, told two hundred and twenty-five members of its New York and Westchester women's divisions at its annual donor luncheon on May 21 at the Waldorf-Astoria.

Alfred Triefus, president of the hospital, Samuel Schaefer, executive director, and Col. Melvin H. Schlesinger, finance chairman, came from Denver for the occasion. Mr. Schaefer said the tuberculosis facilities at the hospital, which cares for one thousand patients on a nonsectarian basis, should be expanded "because of the anticipated rise in tuberculosis figures."*

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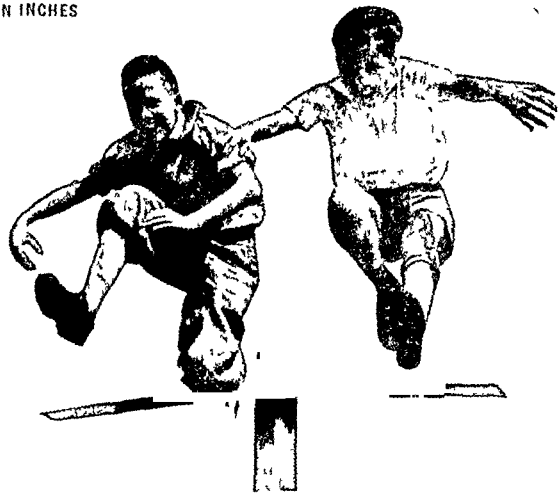
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Birth	20 2	19 9
3 months	24 1	23 7
6 months	26 4	26 0
12 months	29 5	29 0
18 months	31 9	31 4
2 years	33 9	33 4
3 years	37 3	36 7
4 years	40 2	39 6
5 years	42 7	42 2
6 years	45 0	44 6
7 years	47 2	46 8
8 years	49 2	48 9
9 years	51 2	50 9
10 years	53 2	53 0
11 years	55 2	55.3
12 years	57 1	57 6
13 years	58 9	59 7
14 years	60.7	61.4
15 years	62 4	62.5
16 years	64 0	63.2
17 years	65 4	63 7
18 years	66 6	64 0
19 years	67.5	64 0
20 years	68 0	64 0



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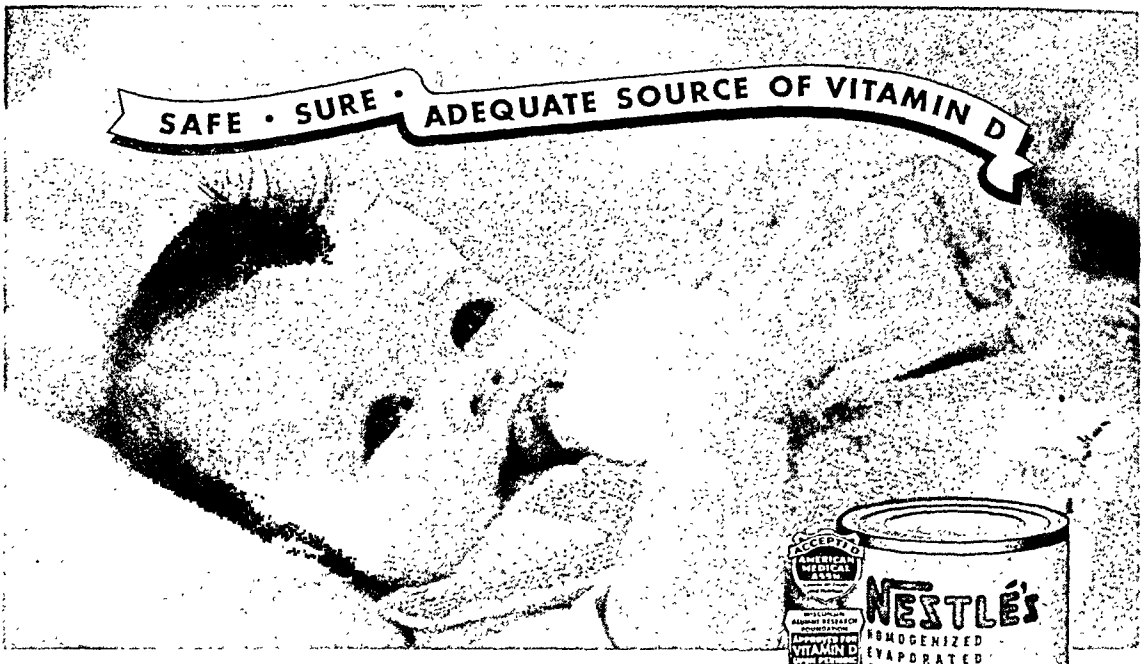
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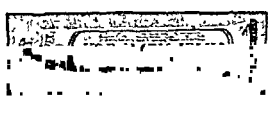
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Books

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RECEIVED

Duodenal and Jejunal Peptic Ulcer. Technic of Resection. By Rudolf Nissen, M.D. Octavo of 143 pages, illustrated. New York, Grune & Stratton, 1945. Cloth, $4.75.

Anatomy. As a Basis for Medical and Dental Practice. By Donald Mainland, M.B., D.Sc. Octavo of 863 pages, illustrated. New York, Paul B. Hoeber, 1945. Cloth, $7.50. (Med. Students' Series.)

REVIEWED

Practical Malaria Control. A Handbook for Field Workers. By Carl E. M. Gunther, M.D. Duodecimo of 91 pages. New York, Philosophical Library, Inc., 1944. Cloth, $2.50.

A concise and practical manual on malaria control, this little handbook will prove invaluable to workers in the field. Shorn of embellishment, its 91 pages are jammed with facts based on years of practical application. No theoretic treatise this, but a manual of what to do and how to do it.

To the physician faced with the problem of malaria, as are so many today, it will undoubtedly be a welcome volume.

H. M. FEINBLATT

Hypertension and Hypertensive Disease. By William Goldring, M.D., and Herbert Chasis, M.D. Octavo of 253 pages, illustrated. New York, Commonwealth Fund, 1944. Cloth, $3.50.

This volume is in the main a summary of the experience of the authors in dealing with a large number of cases of hypertension at Bellevue Hospital. The more refined methods which have been introduced by the New York University group in the study of kidney function are explained in detail and the results in hypertension are given. They show that the kidney is affected easily in essential hypertension although in only a small percentage of cases is renal failure the cause of death. The book is mainly devoted to essential hypertension and a critical review is presented of the whole subject. Despite the hope of an early solution of this problem as a result of Goldblatt's work, the authors conclude that the renal lesions are secondary to the hypertension and that the kidney is not primarily at fault. This is the consensus of opinion of a majority of students of the subject at present. They also feel that more of the present forms of therapy are based on a sound foundation, as they do not attack the fundamental cause of essential hypertension. The book is well written and the data clearly presented. It is a valuable addition to the literature on this perplexing subject.

J. HAMILTON CRAWFORD

Handbook for the Medical Secretary. By Miriam Bredow. Duodecimo of 253 pages, illustrated. New York, McGraw-Hill Book Co., 1943. Cloth, $2.25.

A secretary who would fulfill all the qualifications discussed within the pages of this book would be perfect indeed. This little volume belongs in the hands of any doctor's secretary as a guide in her daily work.

B. M. BERNSTEIN

The Analysis and Interpretation of Symptoms. Edited by Cyril M. MacBryde, M.D. Octavo of 301 pages, illustrated. Philadelphia, J. B. Lippincott Co., 1944.

In this cloth-bound reprint of the April, 1944, issue of *Clinics*, Dr. Cyril MacBryde and nine collaborators discuss in detail nine sets of symptoms which present problems in differential diagnosis. Nervousness and fatigue, fever, headache, thoracic pain, cough and hemoptysis, abdominal pain, gastro-intestinal bleeding, jaundice, joint pain, and obesity are the topics covered.

All the papers are good. Of outstanding excellence are those by Schiff on hematemesis and melena and a brief but eminently sensible discussion of obesity by the editor, MacBryde. In the latter, there is a section on the neglected psychologic aspects of obesity.

The book is cheap, well printed and bound, contains a good index, and might well form part of the working library of the intern and busy practitioner.

M. PLOTZ

Bailey's Text-book of Histology. Revised by Philip E. Smith, Ph.D., and Wilfred M. Copenhaver, Ph.D. Eleventh edition. Octavo of 786 pages, illustrated. Baltimore, Williams & Wilkins Co., 1944. Cloth, $6.00.

The authors have revised the tenth edition to bring to date a text primarily for first-year medical and dental students. They have added many new plates and figures.

The chapter on the female reproductive system has been made more complete by the addition of many recent articles. The authors should be commended for bringing to the overburdened student such a comprehensive histology text.

NATHAN REIBSTEIN

Sexual Anomalies and Perversions. Physical and Psychological Development and Treatment. A summary of the works of the late Professor Magnus Hirschfeld, M.D. Octavo of 630 pages. New York, Emerson Books, Inc., 1944. Cloth, $4.95.

This volume is the translation of a summary of the works of the late Dr. Hirschfeld, who devoted a good deal of his time to sex anomalies. It is a large book covering the different aspects of the subject and contains many case histories. The book as a whole does not measure up to those published by different psychoanalytically trained authors. However, it does contain some valuable information and numerous case histories. Works on sex have a universal appeal and this is enhanced during wartime. Therefore, many people will find considerable interest in this particular volume.

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[1] John Rentaul, Amer. Jour. Med. Sciences, 1941, N.



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